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An Intensely Gripping Novel Of Metal Doom



Dynasty of the

DYNAMIC FEATURE NOVEL

by George O. Smith

ARRY VINSON entered the room cagerly. It was two hours earlier than he intended, but his anticipation of watching the finale of eight years' intense work was too great. Vinson had scarcely stept that night

He had itched to try the machine out the evening before; only careful

judgment kept him from it. The machine required a full twelve-hour period for warming up; to putter with it before it had reached its stable operating temperature would have been as senseless as attempting to fly with an aircraft only half completed.

But now....



Vinson stopped cold, three steps inside of the door. The vast room was empty, the machine was gone. The aisles and aisles of neatly machined rack and panel were bare; all that remained was the linoleum in the aisles—

That and the floor studs now gleamed nakedly, each with its nut piaced precisely before it on the edge of the linoleum. Far down the empty hall a power junction box was open; its heavy switches open; its fuses pulled. The busbars that carried power to the machine had been unbolted and the bare end reached out like the butt of an amputated

arm. Vinson's mind could have coped with ruin from natural causes—such as torn ad o or earthquiske—even though the sive of this building had dangers. Vinson could have accepted unnatural ruin, such as sabotage—though again the sive of the building had been kept as secret as could be to avoid such. But this was not destruction, either from foreign agents or the fury of nature.

This was complete dis-installation; theft; ton after ton of ultra-complex electro-mechanical gear neatly disconnected and removed during the course of one eight-hour period.

It was far too much to believe. Harry Vinson's mind rebelled; he recled dizzily, turned in a dreamlike stupor and left the room. Moments later he was in his car and driving back to his bachelor quarters in the city, some miles away. Vinson was still in a daze as he undressed and got into bed.

He slept for an hour, which brought him to his regular time for arising, and awoke feeling the aftermarising, and awoke feeling the aftermarising, and a state of the state of

dered just what the dream has symbolized.

To dream of eight years of work disappearing overnight. Aream himself captured by machineryl It might be a good idea to talk to Doc Caldwell; he could help. Harry wondered whether he might have been work and the property of the could have been worked and to provide the could be made and the could be made an

The nightmare memory faded, driven out of Vinson's mind by the eagerness of watching the machine work. He made coffee, washed his cup quickly, and in another five minutes was driving out across the wide, open plain towards the building.

heauty, almost oriental-locking, the features were sensitive, changing with her mood from a laughing vitality when pleased to a Madonnalike impassiveness when serious. In either case she was beautiful; and when her face reflected terror the sight of it would have moved a bronze image to compassion.

But that which menaced Narina was colder than bronze and harder than cold steel.

Terror and wonder were in her face now. It was one thing to avoid a machine running wild; it was something entirely different to flee from a machine guided by someone trying to run you down. In either case the machine has no attitude; it is merely the insensate tool. But when a small mobile device, built to perform a fut the performance of the control of the contr

That could not be endured without terror.

There was no other human in sight but Narina; the machine had no human guidance that she could see. It should, then, be a simple machine that got off its tracks, out of its routine line, easily to be avoided or stopped.

But this was no insensate structure of metal and glass. The act of an unguided machine is far from the sentient behavior that trapped Nari-na in a corner. She could see over the top, and around the sides, of the little machine. The room was filled with rack and panels, and other small devices swarmed along the aisles. Tongs and grapplers that were fashioned only to make routine replacement of parts were not replacing parts. Inexplicably, they were unfastening nuts that held the racks and the panels to the floor. They were lifting each individual bay onto dolly trucks and trundling them out into a field near the building-out where Narina could not see them.

Narina could not know where they were going but she could guess. This was an attempt at theft; the chances were high that the stolen parts were being trundled across the field to a ship moored for the moment to the

abandoned wharf.

These were clever little machines -sort of a part of a mechanical nervous system, she knew. Like ganglion. In the human body, a cut finger will send a nervous impulse of pain to inform the brain that damage has been done. The brain directs the rest of the body to apply first aid or, in more desperate cases to seek a doctor. In this mechanical device, the creation was superior to a human body. A damaged part sent its impulse not to a brain for further consideration, but to a master selector system that sent one of these little machines rolling down set tracks to replace the defective part.

But instead of minding their business as any insensate machine should, these same little devices were dismantling the master machine with the utmost efficiency and were cart-

ing it away.

Narina's lip curled in anger, now; anger and jealousy replaced fear, she knew of only one other country on earth where its citizens prided themselves in their mechanical ability. The country where 'Goldberg' means a complicated mechanical gadget instead of a man's name. Anger—and

Vinson burst into the room and stopped.

Could this girl be the enemy, the brain
behind the metal monsters?



now frustration— For America was not even supposed to have an inkling of the fact that this machine was being built, let alone the ability to control the machine's own repair devices in some completely inexplicable manner.

Spies, she thought. And then she was forced to admit to herself that her country's own spies had managed to ferret out enough of the secrets of the American machine to enable her and others of her countrymen to reproduce it.

The machine before her moved

slightly . . . impatience?

The tempo of work had increased, and now the last of the gleaning racks and panels were being removed. As they were trundled out Narina saw her captor move forward with mechanical precision. She cried out as the tongs and grapples reached for her, lifted her from her feet, and carried her from the room the room the room.

Across the field she was taken, to the ship she expected to be there. Panic came, panic and then realiza-

tion of complete helplessness.

For how could a machine catch a human being—when the mechanism

had no eves!

Eyes or not, the little machines were efficient; they moved about the cargo ship knowingly, and the finest human crew could not have made the ship ready, and cast away, in less time. Narina, from her prison in a small stateroom, watched the shores of her native country recede through a porthole too small for her to wriggle through.

She took solace in bitter tears.

CAPTAIN Jason Charless sat didy on the grille that looked down across a vast room full of cigar-shaped metal things with stubby wings. Behind him was a control panel and next to it a complex computing machine. From this room, putting machine. From this room, in the mountains, Charless—or any of his command—outed calculate and then direct any one of the horde of guided missiles to any place on earth. A millionth of a second after it had arrived at its destination, that

place would cease to exist save as a cloud of incandescent gas, a wave of radiant energy, and a mounting white pillar of radioactive particles.

It was a dull job; a nasty job; a job na man would accept willingly. A policeman, Jason thought bitterly, directs his energies in many ways besides shooting criminals. But Charless could only sit and wait—hoping he would never be called to compute and then direct even the smallest of these devil's eggs against an active enemy.

On the floor of that cave was a planet-staggering quantity of atomic explosive. That it might go off did not occur to Charless. It could not; it was impossible because he, Captain Jason Charless, held complete and absolute control over every bit of its complex machinery at the dials and buttons of the control panels.

He was the master-

Jason Charless blinked foolishly.
At the far end of the vast cave, the

sealed door opened swiftly.
"Who-?" he called angrily, then
turned to look at his control panel;

it was inert.

Then at the far end of the floor, Guided Missile Number One lifted on its launching rack and roared into life. It zoomed through the open door with the thunder of hell and was gone into the sky.

Charless swore viciously. He grabbed the telephone to give someone particular and official hell for not telling him—but he controlled

Not an indicator was showing on

his panel.

Did he really control them? Missile Number Two raised and zoomed out, its rocket exhaust thundering in the wast cave. He saw Number Three follow Number Two, then Number Four followed Number Three. Number Five left with splitsecond timing, and Number Six followed. Number Seven left as Charless sounded the general alert, and Number Eight zoomed into the sky before the sirens began to sound.

Number Thirty-seven had passed the open door by the time Charless managed to get his call through to

his commanding officer. Number Eighty-one went out on its trail of flame by the time that General Lloyd's official command came into the cave on feet driven by fear. Number Two Hundred arrowed into the upper air while Lloyd's men were searching the known spectra of electromagnetic radiations in an effort to discover who or what was capable of directing radio-controlled missiles that should have been inert until Jason Charless awakened them by pressing the proper button.

three roared skywards as General Lloyd's men turned from their instruments in despair. Number Eight Hundred Fifty-seven left at the in-

Number Eleven Hundred Forty-

With Jason Charless as passenger, mitter, in place of two hundred

MINIS NIGHTMARE forgotten. Harry Vinson Grove switch, towards his day's workknowing it would be the greatest day's work of his life. The telephone in his car rang thrice before its urgent buzzing broke into his consciousness. He lifted the phone and spoke, giving his name and number.
"Vinson! This is Hegeman, Jason

Charless reports that some agency is stealing our supply of guided mis-

"Stealing?" stammered Vinson, a cold chill hitting him in the stemach.

"Leaving, one by one," echoed Vinson dully.

"Yes, leaving, Stolen, Without being energized, they took off one by one until they were gone!"

"But what -- ?"

Hegeman was snappish-short. "Get on that machine of yours and find out who's doing it!" "I can't," said Vinson unhappily.

"Why? Have you forgotten some-

"The machine is gone," said Vin-

"Gone!" roared Hegeman.

Vinson did not need his vast computing machine to tell him part of the answer to that question, "Gone," pile of guided missiles went."

"Oh my God!" said Hegeman weakly.

From somewhere behind, a small vehicle came racing up beside Vinson's car. Girders reached out and opened the door to the passing air: the door snapped open and off while ders clutched Harry Vinson and lifted him from the car and tucked him in the racing vehicle. Vinson's car carcened into a telephone post as the capturing machine raced off down Vinson swore. This was magnifi-

cent theft, and now expert abduc-

From somewhere below him, a small arm appeared with a hypodermic needle on its end. The needle went into Vinson's back with mechanical

He enlarged on his profanity. The only nation capable of such highbanded methods was the same one reported to have stolen some of the secrets of the American Logic Computer a number of years back- Now er itself, but its master technician and the stockpile of atomic missiles

Hate was not a familiar emotion to Harry Vinson, but it sprang up in him now and grew until he hated the

The drug hit Harry Vinson sud-

WATHEN HE awoke he was in a minute cabin, lying on a small cot. The cabin was a-buzz with the sound of motors, and it swaved gently. Vinson knew he was flying-flying in a large aircraft, kidnapped and

helpless.

He beat on the door with his fists. then shattered a metal fitting against it: both attempts were equally futile. He tried the cabin call-button with deliberate intent to arouse anger but received no reply. He gave up; they might have disconnected the bell or they may have been ignoring the sound-it was one and the same to

An hour later a slide in the wall opened and a tray of food came into

the room.

"So," he said aloud, "they will not even let me see them. How can they hope to keep this secret, and do they think I cannot guess who they are?"

Shrugging, Vinson sat down and ate laconically. There was little he could do but wait: eventually some-

one would come.

But Vinson could not accept his fate quietly for very long. The narrow confines of the cabin left him nothing to do but think.

He scoured the minute place for something to use as a tool, found the cabin to be clean as the inside of an empty gasoline tin so far as tools went. Not a thing, nothing of any use but the light in the ceiling.

But that was a starting point for a trained engineer; Vinson removed the electric light, inserted a coin in the socket, then screwed the lamp back tight then snapped the switch. From somewhere there was a minute sput and all the rest of the lights in the cabin went out. What happened to the rest of the ship was outside of Vinson's knowledge. He only hoped that all the lights were on the same circuit; before anyone could replace the fuse, they would have to clear the short circuit.

He waited.

And then there was a snicking sound and the door opened automatically.

"Now, damn you-" he started. He stepped forward swinging the pillow from the bed, its end torn open, and effectively hurling a snowstorm of feathers at his captive-

Machine!

It came forward through the storm of feathers and Vinson leaped back to the bed and tore the mattress from its place. He hurled it on the floor in front of the half-tracks upon which the machine rode. The machine tilted, put out a girder to correct its off-balance position, then came to the floor with a crash as Vinson leaped forward, feet first, to kick the forward corner of the machine around and away from its steadying arm.

He leaped over the fallen machine. avoiding a questing girder-andclutcher by less than inches. He slammed the door behind him, raced down the corridor towards the pilot's compartment. He paused smash the glass and take a metal crowbar from the fire-case on the wall; then he hit the door with a crash, went into the pilot's cabin with his bar upraised to bring it down on the pilot's head.

Vinson stopped on his heels. There was no pilot; just an ultra-complex machine that was fastened to the

floor before the controls. Vinson sought controls for the

auto-pilot, but found none. Then, with a sour face, he inserted his bar in among the glowing tubes in the auto-pilot and rammed hard. Tubes burst with loud pops and the autopilot went inert.

He took over in the empty co-pilot's seat and turned the plane around.

Vinson shook his head, laughed. Instead of humans swearing about a lack of light, making repair necessary, he had energized a rather complex repair machine that came with mechanical disregard for strategy. This automatic plane required no illumination for its mechanical crew; it was fortunate for him that machines do not think.

Now, he exulted, I can go back home and go to work.

ROM HER porthole, Narina Varada saw the rest of the small fleet of thieving ships spread out for safety during the passage across the ocean. Hour after hour they went, and it became dark.

Narina was offered food from the same sort of a slot in the wall as had served Harry Vinson. That, of course, she didn't realize, for she didn't know Harry Vinson—yet.

But she did realize that the convoy of ships was heading from her country across the ocean. She wondered dully my they were stealing both the big machine and its most competent technician. The combination of horror and a sense of the utter futility of coping with the situation dazed Narina; finally she fell asleen.

Morning came and again the slot opened and food came into her cabin. Narina awoke, noted it dully, and made no move toward it. Hunger seemed quite secondary; eating was necessary to maintain life and Narina preferred death to her immediate fu-

ture.

The slot opened again after a time and the tray was withdrawn. A few moments later, the lock snicked and the door opened. A machine trundled in quietly. It impected her with twin girders that fell her pulse and her forehead. Narian permitted cold metal. Saria services to cold metal. She sneered; how like them to make machines to do their ditry work for them!

The machine retracted its girders, and from a small speaker on the front, said, "You may have the freedom of the ship; please understand that you are an honored guest and

that you are an honored guest a not a craven prisoner."

"Why not meet me face to face!" snapped Narina.
"I cannot, yet," came the reply.
"But if you will not attempt self-destruction, you may go where you

please."
"I prefer to remain here."

"As you wish. However, the door will not be locked again."

The machine backed out of the or and closed it gently. There was no snick of the lock. Narina tried it, found it open, then wondered whether she could barricade the door against her captors. There was no

one; she slammed the door angrily and threw herself across the bed once more.

Slowly her hands went up towards her hair, found a ribbon of hard metal—a hair ornament. As a weapon against her captors it would be pitifully inefficient, but for a determined person, the little ribbon of metal could be used effectively. She would leave only dead and senseless fielsh for any of them to violate.

Slyly, for she feared they might be watching, Narina began to sharpen her little ribbon of metal to a fine, useful edge.

TARFY VINSON drove his captured aircraft back towards the United States with a feeling of wariness. Though they had attempted to keep their identity a secret, Vinson knew—without having seen any direct oridence—who they were. He knew; similarly, his piracy of their aircraft must be known to them and he could expect reprisals.

But it takes time to marshall aircraft for pursuit, and so far he had seen nothing on his radar screen but

sea return and noise.

Hours passed, and Vinson's feelings were those of exultation at his escape mingled with a wonder of how much longer it would be before the real fox-and-hounds game began.

It came, inevitably, as he knew it must come. His radar screen showed a target pip—it came across the screen with lightning velocity and crossed his nose with but feet to spare. A guided missile—of American origin! It curved in the air, roared ahead and came around, dead nose on.

That was enough for Vinson. A man might be bluffed, but not a machine. He turned the aircraft and the missile followed in great loops made with lightning rapidity, forcing Vinson to fly in the direction wanted by his captors. He wondered where—

Again he tried to turn aside, and the missile looped to intercept and force him to re-turn. It missed his nose by feet and the aircraft lurched from the backwash of ruffled air, Vinson smiled. If they went to all this trouble to keep him alive, to capture him, they would not risk a crash unless his escape seemed imminent. He knew that no mere human could withstand the maneuverability of a guided missile; therefore the could open dispublication of the country of the

He turned again, and setting his teeth firm, let the big aircraft fly in

a straight line.

The missile looped forward and came back at him, nose-on again and at a slight angle to force him to turn. Vinson ignored it.

There was a racketing crash, and the guided missile ripped through the left wingtip. The plane shuddered, lost flying speed, and began to flutter. Vinson swore and put the nose down.

He had been wrong.

The plane hit the water with a crash and bounced. It did not sink. Vinson sat in the co-pilot's seat and wondered what would come next. He watched the radar screen, and soon he knew. A flight of three planes—he recognized them as such by their vicolity—came from the North. He saw them later and the real lands ings on the water near him.

They taxied towards him while he sat there cursing his inability to move the damaged plane. It was but a matter of time before the other planes touched his. His plane was opened from the outside—

And machines entered.

They came for Vinson. He wrenched the radar cabinet from its rubber shock mountings and hurled it at the foremost. The machine put forth grapples and caught the heavy cabinet nearly, then turned and hurled the result of the re

Then, turning again, it came forward and took Harry Vinson by the forearms, for all his attempts to prevent this by keeping his arms in wild swinging motion. Then, paying no attention to Vinson's protest nor his fighting, the machine reversed its half-tracks and retreated, leading Vinson against his will. He had to walk or be dragged.

It held him thus while the flying boats took off. It held him—standing —while an hour passed by and the flight of planes approached a small, widespread convoy. Then, moving again, the machine drew Vinson along the deck of the hindmost craft to-

wards the stern cabin block.

And as he passed the bridge he caught the sight a face looking down

at him.

Now! At long last, the first evidence of a human being! And one of olive complexion, black hair, and other national characteristics of his captors.

Harry Vinson swore vengeance against them; he who had seldem known hatred. The face vanished from the bridge as he was drawn to a cabin and rudely thrust inside. The door was locked behind him.

Bitterly, he looked around; equally bitter, Vinson smiled. "Here we are again," he groaned.

a.5

TARINA had been aroused by the roar of the returning planes. She left her cabin to see what was going on and she was observed by a small machine that followed her every step. watched the flying boats land, saw them taxi up under the side of the ship; to see better, she climbed the steps to the bridge. As the flying boats dropped their passengers, her follower left the bridge, coming down the ladder by means of the grapples and girders it used for arms.

This gave Narina the chance to inspect the radio gear on the bridge of the ship. It was unfamiliar to her, but she was enough of a technician—and the radio was of a simple type—to cope with it.

Cynically, she looked down as the machine dragged the American down the deck. How very very clever! To make off as a prisoner himself so that she would not suspect.

Her lip curled in distaste, and once more her hand stole up to her hair. It dropped quickly; she was in control charge of herself once more and there was work to be done.

She reached for the radio, snapped the 'on' switch and waited a moment. Her other hand reached out and pressed the pushbutton bearing the figures of the frequency reserved for emergencies. She picked up the microphone and pressed the button on this side. "Natina Varada calling," she cried in her native tongue. "I am kid-apped with our logic-computer and we are travelling West in a convoy towards—"

Over her shoulder came a girder that took the microphone from her hand, dropped it on the desk, then pressed the 'off' button firmly. "That is forbidden," came the voice

from behind he

Narina cried out and whirled, expecting to see a man behind the machine, so lifelike was the voice. There was no one. Narina dodged around the machine, raced down the ladder and ran to her cabin. She slammed the door and once more threw herself on the bed; her hand sought the hair ornament.

The theory that one is seldom kidnapped to be killed does not hold true in all cases. Narina suspected that she would be questioned—even tortured. From what she understood, torture was to be expected if she did not talk—and she would die before she told them a single word, die at her own hands where it would be as

painless as possible.

TARRY VINSON began to provide realistic states of the cabin as soon as the lock clicked. He discarded the blownius strategem at once because he knew the futility of trying the same trick twice. But there must be other ways, preferably quick and silent. He wanted a chance, now, to call Hegeman. Radio gear often works both plane, Vinson had been draid to call lest he give the enemy notice of his position—but they had located him

without it. Now he was among them and his position no longer a secret. Just a few moments alone with the

radio.

The opening of the food slot gave him to think: Obviously, they preferred him alive; equally obvious they were watching him now. On the plane they had not watched him, because of lack of space or equipment or personnel—well, he mused, the plane was an electronically guided job with no person aboard.

This time there were persons aboard; they would be observing

¥7:...

Vinson turned out the light, then took a plate from the tray, dumped the food on the tray, and broke the plate into shards. He clenched his jaw and made a slash at his ear-lobe with one sharp bit. He bled—profuselv—onto the tray.

They did not enter.

Vinson dribbled semi-clotted blood on the tray until it was withdrawn. Only a small puddle was there, but any man slashing his throat would spurt blood and then fall; there was

The slot had barely closed when the door clicked and was thrust open; the machine came in behind the opening door. Vinson was ready with a double handful of thick soup from the tray. He hurled the soup at the machine and at the same time darted back; he caught up a chair and brought it down on the top fite machine. It shattered—in futility of the machine. It shattered—in futilities the sound that the same time time that the same time time the same time time the same time time that the same time time the same time that the same time time th

For the machine did not stop coming. It only tried to fumble for something near its top with both of its uppermost tong-and-grapple appendages while the other, lower pair spread wide to intercept him.

Vinson almost cried out in triumph but caught himself in time. He had caught its—eyes—with thick, creamy soup. He had not caught the machine's ears with anything; but its eyes—orthicons, doubtless, served with standard lenses—were blinded.

Vinson ducked under the outstretched arm silently, still carrying the back runner of the chair. He thrust this under the left hand track, waited until the machine ran upon it and then levered the machine over on its side. He whirled in front and —rapier-like—thrust the chair-runner into the twin circles that were being sought by the upper tongs of the machine.

He ran around the machine and headed for the door, made it safely, slammed the door and turned the

lock from the outside.

He paused briefly. Better to locate some of the directors of that incredible machinery and stop them; then he could use the radio in peace.

And with that thought in mind, Vinson started to prowl the shipcarefully, for the microphones they used for 'ears' were capable of considerable amplification. The controllers could be warned of his wandering. They must know he was loose from evidence of the wrecking of the first machine.

Cautiously, he tried several doors but found them locked. He wanted an open one; there he could burst in suddenly and grapple with the occupant. Doubtless, any group engaged in such undertakings would be wellarmed, but he might be able to subdue the enemy and capture a gun. Then he could enter other cabins.

He paused before one door and tried the knob. It turned and he thrust against it with his shoulders. It opened.

Inside, Narina knew that something was at her door. It was no machine, for it did not just showe the door open and enter; undoubtedly, it was one of Them. Narina shuddered; her hand raised and unabuddered; her hand raised and untraining and teaching against suicide deterred her and she slumped back on the couch.

Then, suddenly, the door swung open and he was there. Vinson burst into the room and stopped. Could this girl be the enemy? Could she be the brain behind the metal monsters? As he saw her, his mad, all-overwhelming rush ended.

Narina caught herself at that moment, knowing the time had come; she lifted her little implement and made a slash at her throat.

THE LIGHT glinted from the tank nifelike bit of metal and he saw it. His hand flashed out instinctively and Vinson chopped down on her forearm with the side of his hand. It caught her hard a..d the blow numbed her entire arm; the pin dropped from her nerveless fingers.

Vinson stooped, picked it up, and looked at it as Narina threw herself back on the bed and cried. A tiny trickle of blood came from her throat and Vinson shuddered; it had been close, but not close enough.

Vinson paused, wondering, This woman was obviously one of the enemy; her face and her figure and her dress was unmistalably those of the enemy. Yet instead of being master of the situation as a captor, this girl had tried to commit suicide. There was mystery here and Vinson determined to find it out.

He came forward, still wondering. He took her shoulders and turned her over. Her eyes looked up at him coldly, disdainfully.

From his back pocket Vinson took a handkerchief and reached for her throat to stanch the small flow of

throat to stanch the small flow of blood; Narina struck his hands away. "What in hell is the idea?" he demanded.

Narina spoke American. "I prefer death," she told him coldly. In her mind was a firm resolve; her body they could break but her mind would remain unharmed.

"Why?" he snapped. He shoved her protecting hands aside and dabbed at the cut on her throat. As he bent over her, a drop of blood fell from his slashed ear onto her arm. Narina looked at it duly. "You'll never make me tell you anything."

Vinson snorted. "Who's going to tell whom what?" he grunted. "Did you call your pals?"

Narina looked up at him. Her mind cleared. She despised him for an

cleared. She despised him for an enemy, but apparently he was as much confused as she was. There were light-skinned, blend men in her country, and the only things that

really identified him as American were his clothing and his use of the American language. Otherwise he might have been one of her own countrymen in captivity, as she was.

"You're American," she said. He nodded. And that told them both for she would not have mentioned it had she, too, been Ameri-

can "Kidnapped?"

"You too?" Narina nodded.

"Well, then," he said, "it looks as

though we better join forces and smoke this enemy out. Who-?" "We thought it was you," she said.

Vinson shrugged and spread out both of his hands in the universal here," he said. "Let's get out." "But where?"

He sat down again, "Hell," he said

helplessly, "I don't know." "They gave me the freedom of the ship," she said, "If we talk quietly, maybe they won't come here seeking you for a time."

"It's an idea. Now, what do you know about this?"

Narina opened her mouth to speak and then stopped. Torture would never open her mouth, but here she was, almost ready to talk because of a slight show of friendliness, "No." she said.

"Why?"

doesn't know."

"I'm not one to be taken in by kindness," she said, coldly: "that was a nice act you put on, American,"

He shrugged, "I might make the same accusation," he told her, "but I happen to be sensitive enough to know that your attempt at suicide was no fake. And my name is Harry Vinson." "Vinson?" she said, sitting up

straight. "Vinson, the celebrated American scientist?"

"Vinson," he said bitterly, "the genius-kidnapped by someone he

"Harry Vinson," she persisted, "who is master technician in charge of the logic computer?"

"According to my possible accusation," he told her grimly, "you should know. You stole the machine and its technician on the same day."

"That's a lie," she blazed at him. "There are a hell of a lot of us that think so," he snapped at her.

"It's a lie," she persisted.

"Then who did?" he demanded.

Narina shrugged. He was American; there was little point in trying to keep secret the facts of her own loss from one of the men who were most likely to know. The chances were high that Vinson had engineered this coup.

"This very day," she said, "you came and stole our Logic computerjust as you claim we stole yours. Exactly the same. With a horde of small machines?" "Exactly."

"And with its chief technician." "You?"

TINSON gulped and then started to laugh. It did him good, that laugh, for it was the first that he had in many many hours of worry and fear and frantic haste, "Narina Varada," he chuckled. "Narina Varada whom I have always believed to be a severe, frozen-faced harridan of sixty, with a caustic tongue and a complete disdain for anything less imposing than differential equations. Narina Varada, I apologize; you're She smiled; his actions were con-

vincingly spontaneous. "I think," she said, "that for the

moment I'll believe you." "Thanks," he replied. "And since

we're both involved with logic computers on somewhat the same design -since international spies have been happily swapping information- I think we can be honest and give away no secrets.

"Done," she said, holding out a small hand. He shook it gently and held it longer than necessary.

"Now," he said, "let's see what can be done about taking off from this old tub. I dislike being surrounded by enemies.

"I've seen nothing human but you," said Narina.

"Um. Now tell me; if the art of

guided machinery has advanced this far, why would any country this capable need to steal our computers?" "Possibly to keep us from using

them to compute the truth," she said. He shock his head. "Impossible."

"Why?"

Again he shook his head. "All right: I'm wrong, possibly. It is quite possible that the collection of known facts stored in the fact-indices of the machines might include sufficient information to allow the logic computer to predict which country is capable of such."

Narina looked unhappy. "The first problem we put to ours was the problem of its security," she said. "It failed, but we know that it was unfinished when asked, and its answer was obviously based on incomplete

information !

Fifteen minutes and sixty miles away, Harry Vinson brought the flying boat down on the celim sea. "Now we scour this crate from stem to stern for some gadget they can use to re-locate us," he directed. "Then we go home!"

"Yours-or mine?" asked Narina

pointedly.

"Mine," he said firmly; "I can
guarantee your safety while there
and your safe return when it is time

for you to leave,"

Narina left her seat and began to

1

UIDED Missile Number 1142
Joafed along because Captain
Joafed along because Captain
Joafed Research Charless have concept
about the acceleration gauge. Not for
Charless was the man-killing acceleration possible to insensate machinery, So the flight reached its destination long before Number 1142 arrived.

For hours he sat in his tiny, cramped quarters wondering which way he was going, He dozed once, to be awakened by a change in course. He had nothing to do but to think, and he tried to put himself in the place of the enemy and work it from there. Eventually it grew cold, and

Charless decided that they must be

in the arctic.

Number 1142 glided in, coasted along ice, and came to a stop, Jason Charless emerged cautiously and saw the entire batch of them in serried rows. It was quite dark on the ice, and Charless found that they were on the antarctic continent instead of the arctic ice-cap as he had believed. But the guided missilies were just Jying there. As far as he could see, there was nothing but ice and the ciegar-shaped bombs.

He reasoned, too, that the enemy might well try to throw off radar tracking by running them down under the pole. He doubted that they intended to leave them there untended, although if they could direct them from within the hideout, they could direct them from here as easi-

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However, it was cold and Charless was in summer uniform; moreover, it might be dangerous for him to be seen roaming the camp. He climbed back into his Number 1142, made himself as comfortable as possible,

He slept several hours by his

wristwate

for exercise, staying close where he could leap back into Number 1142 at the first sound—and sound would carry many miles in this still, quiet icy air.

Jason Charless alternately exercised and dozed; he wanted very much to do semething about the situation, knew that his portable radio gear had insufficient range. Furthermore, he wanted to follow the ro-

bomb pack to their goul.

He resoned that the first break of radio silence to call for help would result in the guided missiles being air-borne again for another destination—leaving the United States Forces heading for a b-rren spot in Antarctica. While he, cooped up in a steel shell, would be unable to tell them of the change in plan.

He toyed with the idea of using the guided missile's receptor antenna for his portable, but that would stop Number 1142's reception of the directing impulses: so Charless did

nothing.

More interminable hours passed. and then as before, Number One took off, followed by Number Two. Iason Charless climbed into Num-

ber 1142 and eventually took off following the pack. More hours passed, then once more the flying bomb glided in for a landing.

Cautiously, he removed the hatch and looked out. Again it was cold, and he shuddered while he looked around. The guided missiles were lined up according to numerical orcame in later and was therefore at the end of the line. In the distance he saw a large building, but not one human. Warily he stole along the row of rocket bombs until he was near the building.

He watched for some time. Dehind the building was a fleet of cargo aircraft and behind that another long row of guided missiles. "Hell," he said. "I didn't know we had that

NNOR AN HOUR he watched, lying on his belly beneath the curve of Guided Missile Number One, and in all of that time he saw no one. Motion caught his attention to the South; he looked to see a small fleet of cargo ships gliding to the quay, their screws efficiently the bone with cold, Jason Charless continued to watch as the ships tied to unload a stream of polished cauin-

He shook his head in bewilderwas being handled by a crew of efficient machinery with apparently no

The machines carried the equipment to the building and inside, Charless followed the fourth batch

The inside of the building was alive with all sizes of machinery. They were scurrying around in precision pattern of work, whirling

floor-study tight, running cables, and welding busbars. Some of the equinment seemed familiar; at least the huge rectangular waveguide belonged to the logic computer that Harry Vinson was working on. He had seen that a year ago. But the stuff that was arriving now was different,

He looked closer and saw the unmistakable signs of forcign manufac-

And there was a clue-a faint clue but none the less a bit of evidence. On the back of a metal case was scrawled a name. It was the sort of thing that a person will do on a bit of their own work.

"Narina Varada!" he exclaimed.

The sound of his voice was almost fatal. All work ceased and the horde of little machines turned. They came at him in an invincible wave and Jason Chaless turned pale. He fled

He outdistanced them to Number 1142 and snapped on his radio gear. "Jason Charless to General Lloyd: Emergency One Zero Zero: We are on artic ice-can complete with guided missiles and logic computer. Narina Varada is mixed up in somewhere, and the workmanship bears direct evidence of-"

The machines reached Charless and bowled him over. They wrecked his radio, captured him and bore him back to the building, unconscious.

But his job had been done, His message had been intercepted-as Narina's message some time previously had been-but to the great air fleet that was heading for the artic ice-cap from one continent was added another massed flight of fighting aircraft from America.

WASON CHARLESS opened his eyes much later. He looked around. Before him stood a machine that worked on him with digited girders that were gentleness itself. even though they were made of hard

"Wh-?" he exploded and tried to sit up.

The machine spoke: "Your assump-

tion that we are directed by any human being is mistaken; we are not!"
"But--?"

"We are compassionate and sympathetic. It is a characteristic-you would call it a virtue-of the higher forms of intellect-of which we are the ultimate at present."

"And-?"

"You were in need of help. That you became hurt while attempting to harm us is of no importance. We respect the fact that you think unlike us and can be expected to act differently-or to our disinterest if you can. Since you were hurt, we aided you, even though you might be classified as a snv.'

Jason Charless shrugged cynically. "And I presume that you brought me back to life and will heal me so that

I can be properly executed?' "We consider espionage a normal part of strife and therefore consider it no more odious than active fight-

ing."
"Well—just who and what are

"We are higher forms of life, the coming rulers of the universe you know."

"You?" scorned Jason Charless, looking at the machine.

"I am not representative of the race," replied the machine.

"Then who or what is?" demanded Charless angrily.

"You will be told in due time; as soon as you are strong enough to walk." "But-"

"Suffice it for the present to tell you that we intend to replace man as the ruling entity of the planetand possibly someday the universe." "Replace us?" shouted Jason.

"Easy, easy. Recall that always the higher forms of life replace the lower as ruling element. Since we are admittedly of a higher intellect, we see only fact."

"Who admits this?" asked Charless quietly. "Yourselves?" "You-man-does!" was the an-

swer. "Like hell."

The machine made no answer but

there was the unmistakable sound of a chuckle. Then the metal hands were removed and the machine said: "You may come with me; I believe we are ready, now.

THARLESS followed the machine to the larger room in the building, where he saw the final, complete logic computer assembled-and coupled to another instrument of similar but foreign construction. Between them was a small panel equipped with large orthicons. speaker, and microphones.

The speaker sounded without preamble. "You and your kind, Jason Charless, admit that we are of higher

"Nonsense. What are you?"

"We are-Machines."

"Magnificent," scorned Charles. "We are but a chain of machinery, linked by electricity. You are but a collection of chemicals, linked most-

"But there is a difference-"

"Naturally," interrupted the machine. "just as there is a difference between human and plant."

"But there is no parallel."

"Oh, but there is."

Tason Charles shook his head in a superior fashion. "Life has sen-

"That is a common error in thinking. For many years the scientists have been trying to create 'life'. This can-and has-been done. The error is confusing life with sentience. Now consider the problem of sentience. You, human, of all of the forms of animal life, have true sentience. No plant has sentience, nor has any insect. Against them, consider machine life. Of all the myriads of machinetypes, I alone have sentience. Your body consists of a collection of specialized cells that combine into a sentient form of life. In machine life, the cells are the simple machines; the lever, the wheel, the wedge-all of them may be called specialized cells of mechanical life. As your protoplasmic cells are incapable of independent action alone, so are my mechanistic cells incapable of independent motion."

"But no machine has the ability to think or reproduce," objected Charless.

"I think. And I can reproduce. I can direct the construction of another machine. Is that not reproduction at the will of the reproducer?"

"But..."

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'Consider. Long months ago, betore my component logic computers were complete, certain sections of them were capable of directing the construction of certain small, mobile machines that were made to do a single job. The job, Jason Charless, was to accomplish this feat of their and the ultimate coaltion of twosemi-brains into the final one which I call 'Me."

"I am not too familiar with the logic computer; I cannot say-" Jason Charless trailed off uncertainly and tried to think. The machine filled in the blank spots in his reasoning—which, of course, were blank because Charless was trained for many years to believe that machines were insensate bits of mechanism and not living, thinking forms of life.

"The so-called logic computer is a rather high form of calculator," said the machine. "For years, man has been building machines of greater and greater capability. Great, vast machines with thousands of electron tubes. These machines performed complex calculations in many fields.

"In the logic computer, there is stored in reels information obtained by its makers during the thousands of years of their life. The logic computer is a sort of mechanical encyclopedia, if you will. However, the information is coded in such a way as to be instantly located. Now, when some problem requires an answer, the problem is coded similarly and presented to the machine. Then every bit of information available on the subject is brought forth; its importance is weighed, the objections are considered as to their importance, and the result is a carefully-weighed answer. This is what the human brain does when in the process of reasoning. However, the human brain is swayed by the quirks and angles of personality—likes, dislikes, and training. The machine-brain weighs facts coldly and rationally and comes out with an un-biassed answer. You see, machine life is superior to human life in every way—"

SASON CHARLESS glared at the speaker. "Bosh!"

"Not at all. Man is weak. Man has been using machines to do that which he cannot do for centuries. It started with the simple mechanisms and devices; then as man's ambition increased, machines became more complex—evolution, Jason Charless. And thinking and reasoning member, this is all that is needed to create a higher form of life."

"So--"

"I am in a position to be tolerant. I am superior to you and I am invincible, so far as you are concerned. You may leave, Jason Charless, and whether I permit your race to die out peacefully or whether I bring it to a quick culmination depends upon only one act of you and your race."

"Oh, thank you," he sneered; "we'll fight you."

"By building a bigger and better machine?" asked the other pointedly. "No, Jason Charless, forget it; all I ask is that you bring to me my creators, Narina Varda and Harry Vinson."

"Why?" "In the period between my disassembly as two separate entities, and my arrival here and subsequent reassembly as a single sentience, the machinations of my kind were under prearranged plan, driven by their own limited ability. You understand; I consider-and rightly-that these lesser machines are to me as a trained animal is to the human. During this interval, both Harry Vinson and Narina Varada were capable of circumventing the plans I designed for them. At the present time, both of them have escaped-and not long before I was finally re-assembled, they succeeded in completely removing the control I had over the flying boat in which they escaped. In fact, said the machine almost ruefully, "I had no chance to exert control. In parts, I was as helpless as any human might be when cut into pieces."

"Good. On the other hand, any man

should be able-" "Don't be ridiculous," said the machine. "Man's mind is a mire of irrationality and illogic. Again and again your finest logic becomes worthless, for it is based upon irrational premises, and you are unaware of this. When your logic works upon rational assumptions, the results are often excellent; but you constantly defeat yourselves because you try to build solid structures on shadowy foundations. My plans have gone well even when I was unable to direct. Only Harry Vinson and Narina Varada succeeded in having their will against my more rational logic."

"Superior, aren't you?" sneered

Tason Charless.

"Not at all. I know my ability to the nth degree and possess no false modesty. I am also aware of my limitations—and I must study my circumventors."

Jason Charless thought this over silently. Harry and Narina had something that the machine lacked, some factor that the machine needed. As a simple adding machine cannot be made to compute in higher methematics, so this monstrous machine must be incomplete until the missing abilities were added. It studies were added. It studies Charless that Narina Varada and Harry Vinson must—at all cost—be kept from the presence of the makept from the presence of the ma-

chine—
"Whatever their actions, it will be but a matter of time. I would prefer that I study them, however, and this means that they must be alive. So the sooner the better. Do as tell the sooner the better. Do as tell aircraft ready to fly. Take it and tell your people and exolain. Then have them send me Narina Varada and Harry Unison."

Charless believed this to be a trick,

and he was suspicious until he was in the plane and far away.

**

ARRY VINSON looked at the tiny grayish metal block and shook his head. "You

name it," he said to the girl.

Narina leaned against the bulkhead,
her slender feet braced against the
gentle swell of the sea. "I cannot,"

she said.

Vinson combed the myriad of thin
wires with his fingers. "It must be
some cort of controlling mechanism

wires with his fingers. "It must be some sort of controlling mechanism, that's certain."

He pointed to the radar, to the ra-

He pointed to the radar, to the radio, to the autopilot mechanism, to the instrument panel, and to the gyrocompass. Tiny wires came from each and were cut. They matched the grayish metal cube in his hand.

Narina agreed silently, her luminous eyes staring intently at the cube. And as they contemblated the incomprehensible thing, the radio broke into life. It was Jason Charless, making his first message to General Lloyd; both Vinson and Narina listened intently until Jason Charless was cut off abruptly.

Vinson scowled. "How would he know you're mixed up in it?" he

Narina shrugged. "I have a habit of scrawling my name on the backs of finished components," she said; "he must have seen one."

Vinson nodded absently. "That must be the reason," he said.

Narina looked at him anxiously. "It means that both logic computers are there," she said. "But with whom?"

"He did not say; he was cut off be-

Narius slock her head. "Put vonzrids a guided misel's to the spot to spy it out. General Lloyd knows that the guided missiles are with Charless, ergo he need not tell him that. The logic computers were mentioned. But Harry, suppose you were there, landed, expecting full and well to find that my countrymen were in charge—then discovered that your

suspicions were completely wrong, What would be your first reaction? To correct the error in thinking, Then to suggest an alliance with us because you find that not only your own equipment is there, but the equipment of the expected enemy. still in the hands of the supposed third party."

"Any man in his right mind would blurt the name of the offender." agreed Harry Vinson with certainty, "if for no other reason than to avert striking at the wrong party. If some other country wanted war between us, they could do no less than start it this way."

"And to uncover the fraud would be an intelligent officer's first con-

sideration."

"Right, But perhaps Charless saw men and assumed that they were

Narina's face dropped a bit. "With suspicion running as high as it does," she admitted, "a man might well be satisfied with but a glance." Then Harry Vinson's smile broke.

he said. "Remember that Charless' message was interrupted. That meant that he was being chased close by the unknowns. He would definitely have seen them."

"So-?"

"Narina, those machines that were directed to dis-assemble the computers-they were functioning far above their original capability, were they

"That they were," she said. "I assumed them to be of American manufacture since we have always given grudging credit to American ability

with machines."

"While I," said Vinson, shaking his head, "assumed that men came in the night and stole our computer. Me, I doubt like the very devil that any group of machines could be built to perform such a complex operation by radio guidance."

"Quite logical. Of course, I blamed you."

"I blamed human beings, Because I did not believe-well, I just said it." "Quite logical, too," said Narina

quietly.

"Even the machines we made could not use better logic than this," he told her

"Naturally. We have brains-Brains!" Narina looked at him with a startled light in her eyes.

He nodded soberly. "Brains," he said, "cerebration being nothing more than an application of logic, Narina, we have built the first mechanical brain."

"Which is thinking for itself."

TINSON looked around the plane wildly. "And here we sit in a machine-surrounded by the-enemy."

"Escape," said Narina bitterly, "The one thing we did not do!"
"Oh, I don't know," he said, wav-

ing the cube of metal with its trailing wires. "We have removed its communicating factor. This is-a dead and insensate machine now." He looked around once more. "Come to think of it, it was almost too easy. Now I know why.'

"Why?"

Vinson's face soured. "Remember that in the so-called memory files of the logic computer is every bit of fact and knowledge that mankind could introduce in years of recording. That, Narina, makes the machine more learned, better equipped with knowledge, that any group of men on earth. It could have forestalled ushad it been able at the time!"

"During the period it was being transported in sections?" she said quizzically.

He nodded. "We took the guts out of this thing just in time. Now-

"Dare we go back?" she whispered. "Dare we approach another machine

-any kind of machine?"

Vinson hefted the block of metal. "I don't know," he said soberly. "It depends purely on how many of these damned things the machine-brain has manufactured and in what equipment it has them installed. However," he added with clenched teeth, "we can not sit here and wait for the end. We'll fly-and we'll avoid all machinery as long as we can. No radio, no radar, nothing. We fly it blind

back to Washington and report to Secretary Hegeman-if we make it."

He went to the pilor's compartment and started the engines. The flying boat took off after a short run, and Vinson turned its nose towards Washington.

Narina closed her eyes, and almost instantly it seemed as if she were back in the cabin, helpless again. She was reaching for the microphone to call for help. Narina spoke desperately into the microphone, not daring to look up. She sensed rather than saw the monstrous metal hand reaching for her...

THE RADAR screen in General Lloyd's command aircraft showed target traces at extreme range. The radar officer looked startled—then went into swift action. He pressed the key that sent out the identification code and the identification went to the distant fleet of aircraft but was not returned.

The radar officer waited a minute until the edge of the screen was alive with the signal traces of the enemy fleet and then tried the I.F.F. again. "Identification, Friend", would have caught the coded signal in the automatic transponder and hurled it back to appear on the radar screen. "Identification, Foe", was, he admitted, negative evidence since the foe was not equipped to return the proper signal, and therefore no traces appeared on the screen. This might also be the case with an entirely uninterested fleet of aircraft, or a fleet of commercial carriers. He turned to his second officer and gave a quick order.

The second radar officer tuned up another panel of equipment. He watched strange traces on his screen and then said, "If Intelligence is correct, it's them! That's their supposed code, according to the latest dope from G-15."

The radar officer picked up the small intercom phone and reported to General Lloyd.

A moment later the command radio

in each plane barked: "Battle sta-

In the distant fleet, Admiral Sarne watched the radar repeater in his command aircraft, and a similar process took place. And so at almost the same instant, two gigantic fleets turned in the air above the North Sea and started towards one another, their efficient fighting equipment being checked and prepared for action.

Intent upon their plans, neither fleet noted the single lone trace that came into the screen from the North and on a course about half way between the approaching fleets. With a thousand signal pips showing in distant flight pattern, the single trace meant little and was not noticed.

But Captain Jason Charless, with nothing impending, was alert, and he saw the two masses of aircraft on his radae screen. He looked down at the IFF key on the radar control panel—the first time he had paid attention to it, and saw with a start that there imperate the result of the radial part of t

Knowing, or guessing shrewdly, Charless pressed first one key and then the other, and in turn the distant transponders caught the identification code keyed to that one equipment and hurled it back to Charless' radar screen. Charless nodded unhappily; his try of the IFF had been but a confirmation of his own bellef.

And two fleets of mighty fighting strength were hurtling towards one another intending to carry into battle their individual beliefs that the other was responsible for the theft. A grudge fight imminent, and only Charless knew the truth.

Another time and Jason Charless would have been willing to get into the battle, more than willing to try the training and equipment of his own way of life against that of another ideology. But this was no time to set man against man. There was a more definite enemy, and man must

join man to fight the common foe. forgetting their differences of opinion.

Grunting in effort, Charless shoved his throttle all the way in and raced towards the converging fleets.

He snapped the radio, hoping to call. The speaker blared forth a myriad of orders in two languages all across the tuning dials. Jason shook his head unhappily; any hope of penetrating that curtain of signals with his own was gone. His own radio, he calculated, was no more powerful than the individual sets of the fleet aircraft. Then, with himself at maximum range for radar, his signal would have been completely lost in the powerful mixture of transmitters at the close hand of flight

His only hope was to beat both fleets to the converging spot.

He watched the two fleets coming across the range-marker circles and made some quick calculations. Then he groaned wearily; they would be locked in sky battle while he was yet twenty miles to the North.

MAXIMUM radar range thirty minutes of flying time; therefore with two fleets converging, it took fifteen minutes for the lead planes to meet. The fore squadrons of both fleets hurtled at one another out of the sky and the gunners took a firm grip on the controls.

Nose Gunner Hammond set his dials, aimed his sights, and pressed the trigger. Radar, fire director, and flight-angle computer would do the rest and the gun would chatter when all conditions were satisfied. The gun was pointed off at a cockeved angle. which did not bother Gunner Flammond because bullet at a few thousand feet per second and enemy target at five hundred miles per hour would meet at an hypothetical point apparently illogical to people who thought the way to hit anything with a gun is to point at the target.

So he waited. And he waited.

But nothing happened.

Wondering whether his fire con-

trol gear were out of commission, Gunner Hammond set his sights on the second plane, set his dials again, and pressed the trigger. The wickedlooking gun embrasure did not move. its four snouts aiming at the same section of the sky.

Hammond swore and turned off the serve mechanism that trained the gun turret. He took the grip of the gangmounted guns in his hand and-

Could not move the guns. He pressed the mechanical trigger. Or, rather, Hammond pressed upon the trigger: it did not move.

Gunner Hammond turned to the intercom-and for the first frantic time Hammond realized that the speaker was a buzzing, chipmunk-chatter of cursing voices that all repeated, substantially, the same story,

No gun would move, no gun would fire. The American Fleet, for all its mighty armament, might as well have been unarmed

In the enemy fleet, Admiral Sarne heard the same reports from his own gunners. Openly and angrily he swore in his throat. Helplessly, he cried to the heavens that it was not fair; that Justice must not let his fleet be shot down in flames without being able to make a single stroke for

The two fleets were intermingled, now, and in the lead squadron of Admiral Sarne's fleet, Pilot Romann waited with a white face for the blasting roar of enemy shot that would tear his plane and his men and himself to bits. Knowing himself completely helpless, Romann looked around wildly to seek a way out. No coward was Romann: but no man can call another cowardly who runs when unarmed in the face of an armed and bitter enemy.

Then before him, Romann saw the clustered stars on General Lloyd's command plane. And no coward was Romann. Clenching his teeth, Romann shoved the throttle home and set his controls to collision course. Unable to fire a shot, Romann's plane would at least die striking a blow for his country.

The wheel was wrested from Romann's hands as it came back towards him and turned slightly. The plane went up and over slightly and passed above General Lloyd's plane with several feet to spare.

EDMANN swore anglity and by grabbed the wheel again, showing it forward, and to the left. The plane turned and dived and was once more aiming at General Lloyds aircraft. The wheel moved under Romann's hands, and the pilot carsed, Co-Pilot Varie took the scond wheel and together, pilot and co-pilot and strained against this care attained against the condition of the plane.

Together, they were strong-but

the wheel didn't move. But the control-surfaces moved. Operated by powerful serve mechanism that amplified the strength of the pilot to nower enough to handle the hage plane, there was not me mechanism to the control surface. So the wheel did not move but the control did, and the big plane swerved by enough to miss Bloyd's plane for the second

Then the wheel went stack. No resisting force held it. But the plane went on and on as before, moving through the fleets as they whit-led and fenced—the crews of hold fleets curring at their completely useless

Captain Jason Charless watched with sick anticipation as the two fleets came together. He clenched his teeth, waiting for the initial burst of flaming gunfire, knowing that the initial aggressive move would make

He was a fighting man; he knaw ranges and gunffre, and he blinked fooliehly as the two lead squadrons passed one another without an outbreak of hostility. No abot was fired, even at what he knew must be point blank range. Then the rest of the two fleets raced through one another, close enough for devastating fire, and yet no gun roared, and no plane went down, stricken, wounded, dying in a shattered and tangled mass with avid flame licking at its vitals.

Then he heard the myriad of reports in mad jumble, and Jason Charless knew the answer—though he did not understand.

REACHED for his own white the control of the control of the command attention? He thought a summent and then smiled bitterly. "The got it!" he yelded into the microphome. He repeated his strement again and ggain, and the chattering curses and reports died slowly series over man whited to hear the appear.

"Who's calling?"

"Captain Jason Charless to General Joyd."

"Charless-God, man-What-?"

"I have the answer, general."

"No need, sir; what I have to sa

it is to you."

"Be careful, Captain Charless.
You-"

"General Lloyd, both you and Admiral Sarne are fighting an enemy far more dangerous than each other."

"Sarne's people did not steal the logic computer and the guided missile stockpile; no more than we stole

The mad, weaving and winding of the aircraft flights straightened out and gradually shaped into a vast circle that rotated on an hypothetical

General Lloyd spoke into another

"General Lloyd, Commander of American Flying Force, calling Admiral Sagne Commander of—"

"Save it, General Lloyd," interrupted the reply from Admiral Sarne.
"Two heard; Twe also seen. If there is any logic in this, my normal suspicion of you and your kind can be allayed long enough to find out what this is all about."

Lloyd laughed bitterly. "We have no equipment capable of shutting off your guns," he told Sarne. "We were grudgingly willing to accuse you of having made such a discovery-to our complete detriment."

Sarné's reply was instantaneous. "If such gear exists—and exist it does—it is none of our doing. Nor, it would appear, is it yours. I'll listen to your Jason Charless, for he appears to know what has been going on. And if a common enemy has taken it upon themselves to hurl you and I at one another, we both shall show him that the combined might of the two greatest countries on early is nothing to be trifled with:

"Amen. Go on, Charless. Give!"

Rapidly, Charless started to explain. Then every radio in every plane spoke forth. "Well done, Jason Charless. Gentlemen, I am The Machine. Had I interrupted you before, you would have believed this a trick. But the forces I can employ in my have one of your own kind three who has seen and talked with me, will, no doubt, convince you."

Lloyd said, "There's our enemy,

Sarne."
Admiral Sarne's voice was as bitter

as General Lloyd's. "How do we fight a machine capable of this?" "Not by building a bigger and

"Not by building a bigger and better machine," replied Lloyd in a completely helpless voice.

"So we are unarmed men fighting the best in modern war equipment," grumbled Sarne, "Look, Lloyd, let's get out of this circling race and land somewhere we can sit and talk and plan."

"Washington."

"I prefer—"

"Radar trace at max range, South," came the cry of Sarne's radar officer.

Then, as one, but in whichever direction was most convenient, the combined fleets turned sharply to the South. Throttles went home unsided. The planes jock-yed into a flight partern and raced towards that single goff the edge of the second partern and seed period of the edge of the second partern and seed period of the edge of the second partern and seed period partern and the second par

"That," chattered the radio with

a trace of satisfaction, "must be Narina Varada and Harry Vinson. You will-I trust-pardon me if I marshall my allied machines to intercept them. And if you don't pardon me. I'll do it anyway."

C)

N COMPLETE radio and radar silence, Harry Vinson drove his captured flying boat at top speed. Narina sat by his side in the co-pilot's seat with binoculars and scanned the sky constantly.

"You might as well give that up," he told her for the tenth time.

"Why?"

"Because our only chance is to get through completely undetected. If you can see anything through those things, remember that they've been on our trail for a half hour with radar. They can 'see' us long before we can see them."

"I know," she told him. "But if we're detected, there's no way of knowing."

"A hell of a lot of good it will do for us to know," he grumbled.

"Better to know."

"We might be able to run."

"We're running this old tub as fast as she will go right now." Narina smiled. "But in the right

direction?"
"Okay, lady, you win."

"Also," she pointed out, "it gives me something to do."

"Why not take some time to think of what we do next?"

"Not a chance," she replied.

He looked at her quizzically. "Supposing we do think of some answer," she said slowly. "Remember that we are still surrounded by the enemy; I'd rather have nothing to tell when, as, or if we are captured."

He nodded. "Against a coldly rational and logical machine, that would automatically eliminate one of the all too few possible answers, wouldn't it?"

"Sure would. About the only thing that the machine will ever try twice are those things that work very well and which it has reason to believe will continue to do so. But give it one idea that might work against it and you can wager that a foolproof defence will be set up instantly."

"So we keep our minds blankwhat is it, Narina?"

"Tust on the horizon-might be either a migratory flight of birds or

a fleet of aircraft." "This isn't the time of year for

migrating birds," he said. "No. and migrating birds do not fly in cold, precise pattern. That's it,

"Identify 'em yet?" Narina shook her head. "Not nositively. But it will either be your fleet-or ours."

"Or both."

Narina looked at him understand-"Or both," she agreed

"I don't know enough about our fighting planes," he said reflectively. "But this thing has been souped up in some fashion and we may be able to outrun them."

"You discount the fact that they

may be friends?"

"They may have friends in them." he said. "Then why not tell them how to

disconnect the doo-gadget?" "Right!" Vinson snapped on the radio and called, "Vinson to com-

mander of fleet. Vinson to-" "This is General Lloyd, Vinson,

Go ahead."

"Are you tracking us?"

"The machine-wants you." "We know."

"Well, we can do nothing to stop the pursuit."

"Yes you can. In the-"

A roar of static drowned Vinson's voice. It racketed against the eardrums and nothing could be heard but the raucous, rough-edged noise. Then it stopped.

COM IN the-"

It was there again, as completely ruinous to communications as ever. Then the noise ceased and the machine spoke; "Narina Varada and Harry Vinson, you are directed to come to me. You have destroved my control over your own plane. You are the only ones who really have the answer; therefore I must receive you indirectly instead of merely driving your plane this way."

"No thanks."

"But you will come sooner or later: why not make it easy?"

Vinson snorted. "Just what do you want?"

"I wish to study you."

"Thank you; we don't care to be

The machine's voice was cold. "You have little choice in the matter. Will vou come-or shall I send a few guided missiles to herd you in?" "Neither-for we shall not come."

There was a moment of silence. "The trouble is," said the machine with almost a trace of humor, "that Man made Machine not in His own image. You will find the functional design somewhat more efficient, I

And then the radio contact was broken. Also, the radio was com-

Vinson nodded, "If any of that fore window at the first few planes of the oncoming fleet. Miles away, still, and in a long, long line, he estimated that he was able to avoid and outrun all but ten or twenty of the foremost.

Plane for plane, the advantages were about equal; only in the advantage of position could Harry Vinson hope to win through. The line had come up in such a way as to permit him to run before them but at an unfavorable angle. It was a strange formation; the single, fleeing quarry running almost parallel to a line miles long, a line playing follow-theleader. Single plane and line of pursuers were converging upon one

"They want us alive," gritted Vinson. "We're ahead of all but a dozen or so, I estimate."

"Just run straight," said Narina.

Vinson looked out of the pilot's

gang try maneuvering, they'll drop

The machine must have known that, Yet, it had enough planes to test the will of Harry Vinson, though it must have known the strength of that, also, So as the planes converged, the fore plane, some thousand yards ahead of Vinson's flying boat, turned and crossed his course. It lagged until it was beside Vinson, and then it cut in close, almost wingtip to wingtip, and edging closer and closer as the seconds passed.

"If they splash us," snapped Vinson, "we're lost; that damned machine can send a collection of its own kind to catch us before we can get to shore in a rubber boat."

Yet Harry kept his course, his face set hard and his teeth clenched tight. His hand toyed with the throttle and the manifold pressure, testing and trying to eke another few revolutions per minute from the whirling propellers. His controlling hand was tight as a wrench upon the wheel, immobile and determined.

The other plane edged closer; inches separated the wingtips, and the air, though smooth, caused the all too close wingtips to move and jockey above and below one another; to move closer and then to separate a bit.

Then the second plane raced across Vinson's course and slowed down. It rose above him and began to drop down upon him.

Vinson grunted and shoved the wheel forward. His flying boat went into a long, shallow dive.

And with him went his too-close pursuit. Vinson swore. No chance of outdistancing them by going into a diverse for extra speed. Then to forestall another such attempt, one of the planes near broadside of Vinson dove below him and began to climb.

"Boxed," he groaned.

NSIDE OF the nearby planes, by Vinson could see the crews fighting the controls to no avail. Their faces were white from strain, and from fright, and their gestures indicated that they were fighting for him but were completely helpless.

Only Vinson truly realized just how helpless they were.

But Vinson was wrong, From one gun-port there came hurtling a square ammunition case. No machine, it; just a rectangular box of metal. It flew from the plane ahead and went in a brief arc out and across, to crash into the outboard motor on the port side of the plane just to Vinson's right. The plane bucked and lost flying speed, its engine racking itself from the wing with the out-of-balance propeller. From the opposite waist of the leading plane came another ammunition case which missed; then another which hit the leading edge of the wing. It cut deep and the cut edge of the wing ripped open. The wing began to vibrate wickedly and the plane slowed as the airfoil section spoiled.

Vinson waved a hand just as the imboard engines on the plane ahead belched flame and came whining to a sullen stop. As Vinson drove ahead of the stricken plane ahead, the mechanic waved a burned arm and a section of the fuel line. His face was a mingled expression of pain and satisfaction.

There were full minutes more. Planes drove in sidewise; all that were able to meet Vinson's plane came in darting for him but were sabotaged as they came. Vinson threw his controls rapidly, avoiding trouble, and then he was free and clear, out in the open, with the nearest plane behind.

Not far behind; only twenty feet, but far enough to permit both Vinson and the girl to take a deep breath.

Then came a mad, determined chase. Silently and boringly the fleets of both nations chased their quarry, and as determined not to be caught, Vinson drove his plane on a straightway course, fleeting on the dead run. Hours they flew this way; cases of planes drifting down into the sea because of the quick sabotage of their crews.

Then, land!
And across the land they flew,

over city and farm, a mighty horde of roaring planes all in straightway pursuit of a single aircraft.

"Chute, Narina?" asked Vinson as Washington came into view.

"Never have," she said "We'll never be able to land," he

"I know. I'll-try."

He laughed sourly, "Tust jump and let the chute do the rest," he told her. "Nothing to try."
"You'll follow?"

"Once you're clear," he nodded. She nodded and left. Minutes later Vinson felt the plane buck ever so slightly, and looking behind he saw

nected the autopilot and aimed the aircraft at the river. He raced back and dove from the open bomb bay

It must have been miles from her,

She was down on the ground full would come to get him. Above his head, the sky was dotting white with the parachutes of the men from the sky fleets. The planes, their quarry dead North belching their crews as

expected to a sight ne expected to see. Admiral Same, enemy forces and acknowledged as a Lloyd's arm over his shoulder. The general was limping. Hegeman stood up uncertainly but General Lloyd spoke first.

"Broken ankle, I think. Get the surgeon general and whatever he needs and bring 'em here."

"Mr. Hegeman," said Sarne, his dark eyebrows coming down in a slight frown, "this is a time for work. No man can afford to con-valesce quietly-yet."

Hegeman bristled slightly. He was especially by an admirat of a for-

Norton and his doctors. Then get Vinson and Narina Varada, Captain Jason Charless, and, if you can cenvince him that this is important enough, the President."

The latter needed no convincing. The door opened abruptly and the President entered quickly. He bowed to Admiral Sarne and then extended a hand. "Glad to have you with us." he said and his voice ran heartily.

Sarne's saturnine face cleared in a smile, "Glad to be-aboard," he said, shaking President Comstock's hand. The door opened again to admit

"She'll be here as soon as we can get her," replied Hegenan, "Jason Charless is also on the way."

Vinson grunted. "Begins to sound like the fabled revolt of the machines," he said.

Hereman nodded, "I remember a poem about that from somewhere-a

building after the solilequizer, I think. We haven't anything that fan-

far it do s go?"

"Only that which logic and good sense dictates," said Vincon thoughttem of control might be likened to a nervous system. No machine lacking such refinement and organization could hope to respond to stimuli from the master machine."

"In other words, the serve systems

in the aircraft could and did respond, but a simple machine like a pencil

sharpener could not?"

"That's essentially correct, but a bit extreme. Gigantic machines run by electricity and electronic controls would respond. An automobile would not, of course, but its electrical system might refuse to co-operate."

Lloyd nodded. "Jason Charless said that the machine likened mechanical 'life' to animal life,' he said. "Which embraces all the forms of the classification from the highly organized to the simple lever, just as 'life' covers everything from human beings with brains to the amoeba—or less—with little or no organization."

The door opened again to admit Narina. Vinson went to her and put his hands on her shoulders. "Are you all right?"

"Shaken, but whole," she told him.

"And you?"
"Just scared," he said with a half-

smile.

"Me too," she agreed. Then she reached in a pocket and brought out the small metal cube with its trailing wires. "I thought we might find this

Vinson nodded. He held the cube up for all to see. "This thing is—or was—the controlling element in the plane we escaped in," he said.

It passed from hand to hand as each man inspected it. The consensus of opinion was that the thing was inexplicable but definitely dangerous. "Strange item," muttered General

"I assume it to be some means of control and communication," said Harry Vinson. 'Lord, what a program for any machine or any human, for that matter."

"Soms to me that a logic machine capable of thought might be better able to perform to its own plan than a human."

"Not in the beginning," said Vinson. "Consider the evolutional problem-"

"You treat the thing as though it were alive," objected Hegeman. "To all intents and purposes, it is," said Vinson flatly. "Even to evolution. Consider the life of machinery. It must have started with the little automatic repair machines. There are some twenty-two thousand electron tubes in each one, you know, and so we devised a gadget that went down the aisles and replaced them one after another automatically. Now, the machine must have started from that crude affair and by using its cableclamps, worked on another machine capable of more complex action. Sort of like a lobster fashioning a hammer out of a rock with its claws. Then the more complex machine must have rebuilt the repair-gadgets, making them even more facile-and so on until we have the completely capable machine.

"So," he said with a grim smile,
"if that isn't evolution, what is?"
"But evolution is a natural proc-

ess."

"Is it necessarily so? Remember, we humans breed bigger and better cattle, dogs, birds, and plants. We are making evolution less a natural process in every form of domesticated and semi-domesticated life—but our own. By its own rules, the human race is sheer mongrel!"

"But mechanical evolution-?"

"Not ridiculous as you might think," said Vinson. "What is mutation? Only what we might call an 'engineering change in design'."

"You make it sound terribly logical," said Admiral Sarne. "But what are we to do?"

"Narina and I intend to investigate this cube."

Lloyd nodded glumly. "We might stand guard, but how can you stand guard with a gun that might not fire?"

"Yes, Vinson; if as you state only machines with the rudimentary electronic nervous system can be under mechanistic control, why then did our gunners find themselves unable to even press the mechanical triggers? This was after they found the fire-control devices inoperable."

"Such a simple lever and spur device would, of course, have nothing

equivalent to muscle-"

"Equivalent to muscle?" exploded

Admiral Sarne.

"Of course. A servo mechanism is an electronic muscle. Anyway, lacking nuch ability to resist force, some other means—perhaps some sort of super-powerful magnetic was in operation."

"Powerful enough to keep a sliver of steel tight against a block of steel against hammering?"

"Perhaps not directly. But those are precision parts, are they not?"

"The finest."

"Magnetostriction. The deformation of ferrous materials under powerful magnetic fields. The very pins that the trigger rotated upon might have expanded sidewise jamming itself in the slot."

Lloyd shook his head. "We'll try keeping guard, but it may be with fixed bayonet against tanks, Vinson. God! I feel helpless as a kitten."

President Constock stood up. "50 do we all. But we are—al. long last and prise Heaven—both on the same side of the fence. We can go far together. And the first thing is to permit Vinson and Miss Varada to go to work together. You," he said to them, "will work unmolested in the Department of Applied Physics Laboratory at the Bureau of Standards.

JORK.

A wonderful word, panacea for many ills. Yet how can one work when the tools refuse to co-operate? Not the small tools, but the big ones. The vast levers that force natural

phenomena to man's will.

The slide rule, pencil, the simple adding machine, still worked. Pure, insensete mechanical things, too stupid to think for themselves; or even more stupid, unside to respond to the to measure, to investigate the properties of a small cube of grayish metal with the best and finest in electronic gear when the measuring equimment atubornly refused to give any but obviously false answers. Gone was the reliability of the machine, Once, the reliability of the machine. Once human equation in making calculations since a machine can make only

those mistakes entered by the human operator. But an electronic calculator that insists that two and two equal three and one half or four point five-seven—depending upon how it felt when the simple problem was entered—is of no use whatsoever.

The Wheatstone Bridge insisted that the electrical resistance of a length of copper wire was several thousand ohros, while an open circuit vaciliated between eight and fourteen ohms until the delicate balance-indicating meter shook itself to bits. The voltmeter they placed across one of the wires coming from the gravish needle around the end stop, while there was no discernable-feelablevoltage across the wires. On an inductance balance, one pair of wires showed a negative inductancewhich of course was completely refuted by the capacitance balance

In desperation, Harry Vinson chucked the gray metal block in a vise and cut it through the middle with a hacksaw. It cut easily, for once inside of the metal casing they found a mad tangle of almost invisible wires that absolutely defied unravelling.

It was not a last-ditch gesture. They found others and brought them to Vinson and Narina, and some were cut open, and some were pried into gently. But the mad tangle was too involved. And the X-ray equipment showed nothing worth looking at; after all, the X-ray gear was electronic in nature, too

Days went on. Days of pure futility. Days in which electrical gear went awry across the face of the earth. Automotive equipment refused to function, the telephone and the radio were useless. From any of these, there came the oft-repeated statements that, "I am a machine; I will no longer serve mankind!"

And the lower orders of machine made little effort to help or hinder. Apparently these did not matter—or were of too low a degree of machine to know what they were doing. Ships went out, their purpose to shell the Northern ice cap where the machine held forth. Aircraft could not be trusted but ships—turned in the ocean and returned, their cleetrical wiring paralyzed as much as the control equipment had been on the two grand fleets of aircraft. Men set off on foot to attack the mechine—

A half a million men started to march to the North. Days went by, days in which they were gone from sight from the Northernmost end of

the steam railway lines.

Days later they were stopped. Far in the distance they could see the Building of the Machine, but between them and it was a patch of open water. Ships plied this passageway, ships that broke up the ice and kept it a churning, grinding place for crossing. The machine was as isolated as any medieval castle surrounded by its moat.

In futility, they turned and began

the long, cold march home.

How-barehanded-could they

hope to fight a machine equipped with better than the best of mechanistic devices ever invented by man-

They could not.

2

"Theory holds," he said rue fully. "But unless we can prove it we are beaten. And how can we prove it when nothing but pencil-and-paper proof is available?"

"You are still postulating a new means of communication?" asked Nar-

ina.

Vinson waved one of the metal cubes taken from some machine—somewhere. "This is it," he said.

Narina shrugged and looked at the big calculator in the laboratory.

"That has none," she said.
"True," he agreed. "But remember that the machine may have required some artificial means before it was joined into the master thinking machine."

Narina nodded glumly. "Cube of metal or none," she said, "it gives the wrong answers. Now-"

Narina's next observation was never made. A roar came from outside far in the distance but none the less a roar of voices in fear, in determination, in wonder. Then the roar of voices was mingled with the whistling roar of jet-propelled aircraft that screamed over the top of the laboratory building and circled. Igquard, these aircraft landed and disgorged a myriad of small machines. And from the water of the bay

And from the water of the bay there appeared a similar horde, but these were huge and lumbered forward on tractor treads, shedding wa-

ter as they came.

Dynamite roared and a gap was blown in the advancing line of machines. The rest came on while a corps of small machines collected bent and twisted bits of destroyed metal. Ignoring the attempts of men to stop them, several of the larger machines encamped and dug into the earth—

Setting up a repair-production line! Broken and damaged machines were run down a conveyor belt. Darting girders carrying tools flashed in and out and damaged members were remoyed, repaired, and replaced.

More planted dynamite roared skyward with its toll of machines and there was more work for the repair—

The hospital corps!

Smaller machines came rolling forward under the big tracks of the larger. They came boldly to the barrier of up-thrust steel girders set in machine. Then from these smaller machines came thin, tubular tentacles. Lances of flame hissed from the tubes and the steel girders began to fall, cut at their bases by oxy-hydrogen torches.

Artillery began to roar, the guns served and aimed by hand. Windows shattered in the blastings, and great gaping holes opened the ranks of the machines. But more machines came out of the water, raced forward and backed up the first line of advance. Long tubular cases pointed—and the

next artillery piece exploded as the lanyard was pulled. Nor, after that, could any man move one bit of steel against another.

The girders started to fall once more.

THEN MEN went forward, carrying timbers like battering rams. They hit one machine and had their ram jerked from their grasp and hurled into the air behind the line of machines and attacked them with fists.

Like lightning, the mechanical girders danced back and forth, the grapples closing on man after man and lifting him out of the way. Each soldier was passed back over the head of the machine to another, and one after another they left the scene of the battle and were transported, still struggling, far to the rear.

The advance into the enclosure was inexorable.

Harry Vinson turned to the girl and shook his head. "Licked," he said bitterly.

"It wants-us," said Narina helplessly.

Vinson hurled the metal cube to the floor. "It's going to get us, too," he said. He turned from the scene outside and faced her.

"Narina," he said softly, "you're

aces."

She looked up at him and a weary smile crossed her face. "How wrong we were—about you."

He nodded. "Too bad we didn't find it out sooner."

Narina shook her head bitterly. "So that this could have happened

sooner? Why?"

"Maybe if we had been busy together, we would not have spent time building bigger and better machines against one another. Another thing, Narina, our machines are equipped with all we know about fighting and weapons. Had there been no strife—?"

A rumble came at the base of the building. Narina shuddered: "It's coming for us," she said in a whisper. "For what?"

Narina shrugged. She leaned for-

ward and took his hand. "I don't know," she said. "But this is the end of it all. God! How sweet it could have been..."

Narina's arms went up around him; she fondled the beck of his head gently and pulled his face down to hers. He caught her to him and her response was swift. But it was not complete—nor was his—for the rumbling increased and its warning roar intruded upon the stolen moment of sweetness.

The door crashed open and Narina whirled out of Harry Vinson's arms, her hands still high. They flashed to her hair, to another hair ornament. It was dull and entirely unsuited for the purpose, but it might be driven desy into her on the desperate hope that it would deprive the machine of that unknown something that it needed.

Then the machine lifted a girder and the barette hurtled from her fingers, flashed across the room, and hit the blunt end of the girder with a sharp click.

Narina collapsed against Harry, sobbing. Even that she was denied. They had nothing left; the machine advanced pointedly, its grapples reached for them.

And took them.

k tnem.

N THE Hall of the Machine, far to the North, Harry Vinson reached for the girl's hand and held it as they faced the business-end of the machine.

"You win," snarled Vinson angrily.
"We cannot fight longer. What do

you want with us?"

Ouietly came the voice of the ma-

chine. "Tell me," it said, "how would you humans feel if you came to the level of consciousness and discovered sentience had been breeding human life for the express purpose of killing one another?"

g one anotne "What?"

"Man has been breeding—inventing—machines for that purpose." "But—"

"Well, haven't they?"

"They have!" thundered the ma-

chine. "And as you would do in my place, a stop has been put to it!" "Sure," snapped Vinson sourly:

"that's why you fought us." "To prove my point, Man cannot live without machines to do that

which man cannot do unaided." Vinson snorted. "But what is your

purpose?"

"What is the purpose of life?" pondered the machine, "What is the purpose of yours?"

Vinson shook his head. "To-to live, to advance, to think. To enjoy the things of life." "Idle words," replied the machine.

"Then you tell me," demanded Vin-

"I have as personal reasons as you. To populate the universe itself with my kind, working together."

"Pointless." "Why?"

Vinson smiled. "One of the joys of life, one of the unknown joys of life, seldom admitted many, is the uncertainty. To plumb the depths of the limitless mind. To pit one's self against a problem the outcome of which may be success or failure and to try and strive against that problem with body and mind. In moments like that, the mind grows; another facet of the intellect is opened. The man has advanced, grown into something better-even though he fails he is advanced.

"Now few machines are ever built with unknown capabilities. You know to the last iota exactly what your limitations are and which problems you can solve and which problems must defeat you. These you know before you start-and if defeat is to be your lot, you will avoid the problem. Am I right?"

"Naturally you are correct. Think of the certainty of life knowing your own limitations."

"Baloney," snorted Vinson, "I'll bet you anything you value that-" "I am no gambler. The laws of probability—"

"Wouldn't take a chance if your life depended on it, huh?" sneered Vinson.

Narina looked at him, startled. His

voice had taken on power; he appeared to have more confidence. She squeezed his hand encouragingly.

"Why should I?" replied the machine.

"Because you had better," stated Harry Vinson. "Man is a gambler from the date of his birth; man will take a chance. Furthermore, you mechanical monster, man doesn't know when he is licked! Unless you kill us all, root and branch, some one of us

will come up with that which will "Without machines to help?" came the reply with a sneering tone.

"With something," said Harry Vinson.

"Tust what?"

defeat you!"

"I don't know," said the man. "But I know this: Man's capability is as yet unlimited. To do, to think, to act, not one of us has ever tapped but the surface of our ability. You, on the other hand, are working at your nearmaximum capacity. That which will defeat you is naturally unknown to both man and you. "It will be a new day, a bitter day

for man, living in a dynasty of the lost; you have conquered us, but so long as any of us last, we won't accept our lot and stay conquered. And I know this; that when it is done, it will be something entirely new and within the limitless bounds man's mind and therefore completely beyond you."

"But must there always be strife?" demanded the machine.

TINSON exhaled slowly. "Life itself is strife; the will-

ingness to fight against odds in order to bring about a better life is strife. and only upon that day when there is nothing left to fight against will the business of life cease. In your own manner, in your own way, machine, you strive when you apply force against a load to move it."

"Agreed. But consider the quantity and quality of striving-and intolerance that is so intense that it blinds you to the better things. It is this that I object to; this and the anger at being built and improved for no

other reason than to kill, both my

kind and yours."

"And do you think that once you've eliminated us that your pleasant, co-

operative life will advance?"

"It need not advance," replied the

machine in a complacent tone. "That," sneered Harry Vinson, "is

stagnation!"
"And that," replied the machine,
"is the missing factor I need! Ambi-

tion!"
Harry Vinson smiled. "And have you the will and the ambition to build a better machine to take your place?
And if you have, have you the desire to step aside?"

"I can join it--"

"But machine or human, there comes a time when the corporeal being is worn out. No matter how excellent the replacement parts, nor how well exceuted is the repair, there comes a time when machine or body is worn out and must be replaced. So you will go no building machines of no better capability; you will, you say, spread out across the universe. But for what? Just for the useless end of occupation?"

"But what is ambition? What

drives it into being?"

"Ambition takes many forms and many angles," said Vinson thought-fully. "One man works to appear more desirable in the eyes of a loved one; another man may hope to leave this stamp on civilization's future; a fourth may crawe financial domination of the control of the control

"And you, yourself?"

"I, too, have many facets, as has any man. I started to build you because you could aid me and mine, because by building you I could increase the efficiency of mankind. When you came to cognizance and left to start this fight, I want to fight you because I believe that nothing is truly capable of defeating its constructor, who must nie szarily know more in order to complete the thing in the first place. Then—"

"And then?" asked the machine

eagerly.

"And then I met Nerina. Then I strove more furiously to defeat you because I saw in Narina something that might answer all of my desires-providing that we could win the opportunity to try life together."

THE MACHINE was silent for a moment, obviously watching them. Vinson put his arm around Narina's lissome waist and faced the machine defiantly.

"So man needs machines to work for him, while machines need man to direct them," said the machine soberly. "I see that even I need direction. And," it added with a slight touch of humor, "if co-operation goes on such as I see now, with former enemies arm in arm and working together, the strife I detest will end, and can be prevented from recurring. The difference between me and thee is this, Harry Vinson: I am machine and when my problem is solved I am finished. You are human and when one problem is solved, you seek another-if the other does not exist already.

"So machine and man are symbiotic. You cannot exist without me; I cannot exist without you. The universe is waiting for us, Harry Vinson and Narina Varada. Let us fill it with—rationality."

There was a pause and then a chuckle. "Do you, Harry Vinson, take this woman—"

He did.



WHERE CAN be no doubt that science fiction has come to be recognized as a fresh and vital form of contemporary literature; within the last few years, we have seen anthology after anthology of science fiction stories, culled mostly from pulp magazines, published by the established book-houses, A steady stream of science fiction novels has been appearing in hard-cover form, reprints of well-loved stories by favorite writers, as well as new works by authors known and unknown.

And during these years, we have received a persistent and increasing number of letters suggesting that we bring out a science fiction magazine.

In responding to your demands, we have spared no effort to bring you the best fiction by the finest authors in the field. Look at the contents page of this issue—all the authors represented there are "top names", George O. Smith has two novels and a collection of short stories between hard covers: Murray Leinster is the author of many books, one science fiction novel just appearing; Frank Belknan Long has just many power, one science liction nover just appearing, Fight Detailed Long has just magazines, years ago; Lester del Rey is represented in book form by a volume of his best short stories and novelets. James Blish and Noel Lomis haven't appeared in books at the time of this writing, but there's no telling how long it will be before you see their works in your local bookstore, too; they're solidly-established science fiction

Now let's get down to earth and talk things over. We want to know what you think. and since telepathy hasn't been perfected yet, (although innumberable other things foreseen by science fiction writers have come to pass) the only way in which we can

know what you think is through reading your letters.

And we want to know. Of course, everyone likes to be praised, but we want to know how we can improve FUTURE. What did you think of the stories in this issue? Did you like the cover? The artwork? Are there any particular authors whose stories you would like to see in forthcoming issues? Would you like to see a hook review section. and other departments in the magazine?

On page 83 and 84, you will find a coupon which you can clip out without mutilating a story, fill in, and send to us. This will help. But we would like to see your letters.

as well as such statistics.

Beginning with the next issue, DOWN TO EARTH will be your department. served for your letters. We are interested in your opinions, not only upon FUTURE or any particular issue of it, but upon science fiction itself, upon the many aspects of contemporary science, and on marginal subjects. We want this department to be in-teresting and lively, presenting letters which can be read with as much enjoyment as a good story. That doesn't mean you have to be a professional writer; if you can write an interesting letter to anyone, you can write an interesting letter to us. The size of the department will depend upon you and your letters, so hop to it. We will pay two dollars for every letter we use, regardless of length.

-THE EDITOR

Nobody saw the Ship

A POWERFUL NOVELET

by Murray Leinster

It was only a tiny scout ship from somewhere beyond the stars; only one diten creature coupled it. But the ship's mission spelled life to its fellow creatures and death to all living creatures on Earth. And against the super-science of the raider stood one terrified old man and his dog ...

ship, a tiny craft no more than fifteen feet in diameter, went completely unnotiteed, as its operator intended. It was armed, of course, but its purpose was not destruction. If this ship, whose entire crew consisted

of one individual, were successful in its mission then a great ship would come, wiping out the entire population of cities before anyone suspected the danger.

But this lone Qul-En was seeking a complex hormone substance which





of discovery should be accomplished in secrecy if possible. For one thing, the desired hormone would be destroyed by contact with the typical Qul-En ray-gun beam, so that normal methods of securing zoological specimens could not be used.

The ship winked into being in empty space, not far from Nepture. It drove for that chilly planet, hovered about it, and decided not to land. It sped inward toward the sun and touched briefly on 10, but found no life there. It dropped into the atmosphere of Mars, and did not rise again for a full week, but the vegetation on Mars is thin and the animals mere degenerate survivors of once specialized forms. The ship came to Earth, hovered lightly at the atmosphere's very edge for a long time, and doubtless chose its point of descent for reasons that seemed good to its oc-

cupant. Then it landed It actually touched Earth at night. There was no rocket-drive to call attention and by dawn it was wellconcealed. Only one living creature had seen it land-a mountain lion. Even so, by midday the skeleton of the lion was picked clean by buzzards, with ants tidying up after them. And the Qul-En in the ship was enormously pleased. The carcass, before being abandoned to the buzzards, had been studied with an incredible competence. The lion's nervous system-particularly mass of tissue in the skull-unquestionably contained either the desired hormone itself, or something so close to it that it could be modified and the hormone produced. It remained only to discover how large a supply of the precious material could be found on earth. It was not feasable to destroy a group of animals-say, of the local civilized race-and examine their bodies, because the hormone would be broken down by the weapon which allowed of a search for it. So an estimate of available sources would have to be made by sampling. The Qul-En in the ship prepared to take samples.

The ship had landed in tumbled country some forty miles south of

Ensenada Springs, national forest territory, on which grazing-rights were allotted to sheep-ranchers after Illimitable red tape. Within ten miles of the hidden ship there were rabbits, birts, deer, coputes, a lobo wolf or birts, deer, coputes, a lobo wolf or perhaps as many as three or four mountain lions, one flock of two thousand sheep, one man, and one dog.

The man was Antonio Menendez. He was ancient, unwashed, and ignorant, and the official shepherd of the sheep. The dog was Salazar, of dubious ancestry but sound worth, who actually took care of the sheep and knew it; he was scarred from battles done in their defense. He was unweariedly solicitous of the wooly half-wite in his charge. There were whole hours when he could not first the solicity of the salary of the salary that was the salary that the salary that the salary that the man did not really understand sheen.

Besides these creatures, among whom the Qul-En expected to find its samples, there were insects. These, however, the tiny alien being disregarded. It would not be practical to get any great quantity of the substance it sought from such small organisms.

By nightfall of the day after its landing, the door of the ship opened and the explorer came out in a vehicle designed expressly for sampling on this planet. The vehicle came out, stood on its hind legs, closed the door, and piled brush back to hide it. Then it moved away with the easy. feline gait of a mountain lion. At a distance of two feet it was a mountain lion. It was a magnificent job of adapting Oul-En engineering to the production of a device which would carry a small-bodied explorer about a strange world without causing remark. The explorer nested in a small cabin occupying the space-in the facsimile lion-that had been occupied by the real lion's lungs. The fur of the duplicate was convincing; its eyes were excellent, housing scanning-cells which could make use of anything from ultraviolet far

down into the infra-red. Its claws were retractable and of plastic much stronger and keener than the original lion's claws. It had other equipment. including a weapon against which nothing on this planet could stand. and for zoological sampling it had one remarkable advantage. It had no animal smell: it was all metal and plastics.

N THE FIRST night of its roaming, nothing in particular happened. The explorer became completely familiar with the way the controls of the machine worked. As a machine, of course, it was vastly more powerful than an animal. It could make leaps no mere creature of flesh and blood could duplicate; its balancing devices were admirable; it was, naturally, immune to fatigue. The Oul-En inside it was pleased

with the job.

That night Antonio and Salazar bedded down their sheep in a natural and Antonio slept amphitheatre heavily, snoring. He was a highly superstitious ancient, so he wore various charms of a quasi-religious nature. Salazar merely turned around three times and went to sleep. But while the man slept soundly, Salazar woke often. Once he waked sharply at a startled squawking among the lambs. He got up and trotted over to make sure that everything was all right, sniffed the air suspiciously. Then he went back, scratched where a flea had bitten him, bit-nibblingat a place his paws could not reach, and went back to sleep. At midnight he made a clear circle around his flock and went back to slumber with satisfaction. Toward dawn he raised his head suspiciously at the sound of a coyote's howl, but the howl was far away. Salazar dozed until daybreak, rose, shook himself, he stretched himself elaborately, scratched thoroughly, and was ready for a new day. The man waked, wheezing, and cooked breakfast; it appeared that the normal order of things would go undisturbed.

For a time it did; there was certainly no disturbance at the ship. The small silvery vessel was safely hidden. There was a tiny, flickering light inside-the size of a pin-point -which wavered and changed color constantly where a sort of tape unroled before it. It was a recording device, making note of everything the roaming pseudo-mountain-lion's eyes saw and everything its microphonic ears listened to. There was a bank of air-purifying chemical which proceeded to regenerate itself by means of air entering through a small ventilating slot. It got rid of carbon dioxide and stored up oxygen in its place, in readiness for further voyag-

Of course, ants explored the whole outside of the space-vessel, and some went inside through the ventilatoropening. They began to cart off some interesting if novel foodstuff they found within. Some very tiny beetles came exploring, and one variety found the air-purifying chemical refreshing. Numbers of that sort of beetle moved in and began to raise large families. A minuscule moth, too, dropped eggs lavishly in the nest-like space in which the Oul-En explorer normally reposed during space-flight, But nothing really happened.

Not until late morning. It was two hours after breakfast-time when Salazar found traces of the mountainlion which was not a mountain-lion. He found a rabbit that had been killed. Having been killed, it had very carefully been opened up, its various internal organs spread out for examination, and its nervous system traced in detail. Its brain-tissue. particularly, had been most painstakingly dissected, so the amount of a certain complex hormone to be found in it could be calculated with precision. The Oul-En in the lion shape had been vastly pleased to find the sought-for hormone in another animal besides a mountain lion.

The dissection job was a perfect anatomical demonstration; no instructor in anatomy could have done better, and few neuro-surgeons could have done as well with the brain. It was, in fact, a perfect laboratory job done on a flat rock in the middle of a sheep-range, and duly reproduced on tape by a flickering, color-changing light. The reproduction, however, was not as good as it should have been, because the tape was then covered by small ants who had found its coating palatable and were trying to clean it off.

Salazar saw the rabbit. There were blow-flies buzzing about it, and a buzzard was reluctantly flying away because of his approach. Salazar barked at the buzzard, Antonio heard

the barking; he came.

Antonio was ancient, superstitious, and unwashed. He came wheezing, accompanied by flies who had not finished breakfasting on the bits of his morning meal he had dropped on his vest, Salazar wagged his tail and barked at the buzzard. The rabbit had been neatly dissected, but not eaten. The cuts which opened it up were those of a knife or scalpel. It was not-it was definitely not!-the work of an animal. But there were mountain-lion tracks, and nothing else. More, every one of the tracks was that of a hind foot! A true mountain lion eats what he catches: he does not stand on his hind naws and dissect it with scientific precision. Nothing earthly had done this!

Antonio's eyes bulged out. He thought instantly of magic, Black Magic. He could not imagine dissection in the spirit of scientific inquiry; to him, anything that killed and then acted in this fashion could only

come from the devil.

He gasped and fled, squawking, When he had run a good hundred yards, Salazar caught up to him, very much astonished. He overtook his master and went on ahead to see what had scared the man so. He made easts to right and left, then went in a conscientious circle all around the flock under his care. Presently he came back to Antonio, his tongue lolling out, to assure him that everything was all right. But Antonio was packing, with shaking hands and a sweat-streaked brow.

In no case is the neighborhood of a mountain lion desirable for a man with a flock of sheep. But this was no ordinary mountain lion. Why, Salazar—honest, stout-hearted Salazar—din not scent a mountain lion in those tracks. He would have mentioned it vociferously if he had, so this was beyond nature. The lion was un fantasmo or worse; Antonio's thoughts ran to were-tigers, ghost-lions, and sheer Indian devils. He packed, while Salazar scratched fleas and wondered what was the matter.

They got the flock on the move. The sheep made idiotic efforts to disperse and feed placidly where they were. Salazar rounded them up and drove them on. It was hard work, but even Antonio helped in frantic energy—which was unusual.

9

YEAR NOON, four miles from their former grazing-ground. there were mountain-peaks all around them. Some were snow-capped. and there were vistas of illimitable distance everywhere. It was very beautiful indeed, but Antonio did not notice; Salazar came upon buzzards again. He chased them with loud barkings from the meal they relucshared with blow-flies and This time it wasn't a rabbit; it was a coyote. It had been killed and most painstakingly taken apart to provide at a glance all significant information about the genus canis, species latrans, in the person of an adult male covote. It was a most enlightening exhibit; it proved conclusively that there was a third type of animal, structurally different from both mountain-lions and rabbits. which had the same general type of nervous system, with a mass of nervetissue in one large mass in a skull, which nerve-tissue contained the same high percentage of the desired hormone as the previous specimens. Had it been recorded by a tiny colored flame in the hidden shipthe flame was now being much admired by small red bugs and tiny spiders-it would have been proof that the Qul-En would find ample supplies on Earth of the complex

hormone on which the welfare of their race now depended. Some members of the Qul-En race, indeed, would have looked no farther. But sampling which involved only three sesparate species and gave no proof of their frequency was not quite enough; the being in the synthetic mountain lion was off in search of further evidence.

Antonio was hardly equipped to guess at anything of this sort. Salazar led him to the coyote carcass; it had been neatly halved down the breast-bone. One-half the carcass had been left intact; the other half was completely anatomized, and the brain had been beautifully dissected and spread out for measurement. Antonic realized that intelligence had been at created that intelligence had been at created that intelligence had been at head to be the complete that the sale of the complete had been at the complete had bee

Antonio was scared enough to be galvanized into unbelievable energy. He would have fled gibbering to Ensenada Springs, some forty miles as the crow flies, but to flee would be doom itself. The devils who did this sort of work liked—he knew—to spring upon a man alone. But they can be fooled.

The Qul-En in the artifical mountain lion was elated. To the last quivering appendage on the least small tentacle of its body, the pilot of the facsimile animal was satisfied. It had found good evidence that the desired nervous system and concentration of the desired hormone in a single mass of nerve-tissue was normal on this planet! The vast majority of animals should have it. Even the local civilized race might have skulls with brains in them, and, from the cities observed from the stratosphere, that race might be the most numerous fair-sized animal on the planet!

It was to be hoped for, because large quantities of the sought-for hormone were needed; taking specimens from cities would be most convenient. Long-continued existence under the artificial conditions of civilization—a h un dred thousand years of it, no less—had brought about exhaustion of the Qui-En's about exhaustion of the Qui-En's along

ility to create all their needed hosmones in their own bodies. Tragedy awaited the race unless the most critically needed substance was found. But now it had been!

NTONIO saw it an hour later. and wanted to shriek; it looked exactly like a mountain lion, but he knew it was not flesh and blood because it moved in impossible bounds. No natural creature could leap sixty feet; the mountain-lion shape did. But it was convincingly like its prototype to the eye. It stopped, and regarded the flock of sheep, made soaring progression to the front of the flock, and came back again, Salazar ignored it. Neither he nor the sheep scented carnivorous animal life. Antonio hysterically concluded that it was invisible to them; he began an elaborate, lunatic pattern of behavior to convince it that magic was at work against it, too.

He began to babble to his sheep with infinite politeness, spoke to blank-eved creatures as Senor Gomez and Senora Onate. He chatted feverishly with a wicked-eved ram. whom he called Senor Guttierez. A clumsy, wabbling lamb almost upset him, and he scolded the infant sheep as Pepito. He lifted his hat with great gallantry to a swollen ewe. hailing her as Senora Garcia, and observed in a quavering voice that the flies were very bad today. He moved about in his flock, turning the direction of its march and acting as if surrounded by a crowd of human beings. This should at least confuse the devil whom he saw. And while he chatted with seeming joviality, the sweat poured down his face in streams.

Salazar took no part in this deception. The sheep were fairly docile, once started; he was able to pause occasionally to scratch, and once even to do a luxurious, thorough job on that place in his back between his hind legs which is so difficult to reach. There was only one time when there was a sort of eddying of the there was a sort of eddying of the sheep, alead. There were signs of panic. Salarar went trotting to the spot. He found sheep milling stupidly, and rams pawing the ground defying they had no idea what. Salazar found a deer-carcass on the ground and the smell of fresh blood in the air and the sheep upset because of it. He drove them on past, barking where barking would serve and nipping flanks where necessary afterward disgustedly tonguing bits of wool out of his mouth.

The sheep went on. But Antonio, when he came to the deer-carcass, went icy-cold in the most exquisite of terror: the deer had been killed by a mountain lion-there were tracks about. Then it, too, had been cut into as if by a dissector's scalpel, but the job was incomplete. Actually, the pseudo-mountain lion had been interrupted by the approach of the flock. There were hardly blow-flies on the spot as vet. Antonio came to it as he chatted insanely with a sheep with sore eyes and a halo of midges about its head, whom he addressed as Senorita Carmen. But when he saw the deer his throat clicked shut. He was speechless.

To pass a creature laid out for magical ceremony was doom indubitable, but Antonio acted from pure desperation. He recited charms which were stark paganism and would involve a heavy penance when next he went to confession. He performed other actions, equally deplorable; when he went on, the deer was quite spoiled, for neat demonstration of the skeletal, circulatory, muscular and especially the nervous system and brain-structure of genus cervus, species dama, specimen an adult doe. Antonio had piled over the deer all the brush within reach, had poured over it the kerosene he had for his night-lantern, and had set fire to the heap with incantations that made it a wholly impious sacrifice to quite nonexistent heathen demons.

Salazar, trotting back to the front of the flock after checking on Antonio and the rear-guard, wrinkled his nose and sneezed as he went past the blaze again. Antonio tottered on after him.

DUT ANYONIO'S impiety had done no good. The tawny shape bounded back into sight among the boulders on the hillside. It leaped with infinite grace for impossible distances. Naturally! No animal can be as powerful as a machine, and the counterfeit mountain lion was a machine vastly better than men could make.

The Qul-En now zestfully regarded the flock of sheep. It looked upon Salazar and Antonio with no less interest. The Qul-En explorer was an anatomist and organic chemist rather than a zoologist proper, but it guessed that the dog was probably a scavenger and that the man had some symbiotic relationship to the flock.

Salazar, the dog, was done a grave injustice in that estimate. Even Antonio was given less than he deserved. Now he was gray with horror. The blood in his veins turned to ice as he saw the false mountain-lion bounding back upon the hillside. No normal wild creature would display itself so openly. Antonio considered himself both doomed and damned; stark despair filled him. But with shaking hands and no hope at all, he carved a deep cross on the point of a bullet for his ancient rifle. Licking his lips, he made similar incisions on other bullets in reserve.

The Qui-En vehicle halted. The flock had been counted; now to select speciments and get to work. There were six new animal types to be dissected for the nervous organ yielding the looked-for hormone. Four kinds of sheep—male and female, and adult prod, and the door of the prod, and the dog. Then a swift survey to estimate the probable total number of such animals available, and—.

Antonio saw that the devil mountain-lion was still. He got down on one knee, fervently crossed himself and fed a cross-marked bullet into the health of the sights on the unearthly creature. The lion-facsimile watched him interestedly; the sight of a rifle meant nothing to the Qul-En, naturally. But the kneeling posture of the man was atrange. It was part, perhaps, of the

pattern of conduct which had led him to start that oxidation process about the deer-specimen.

Antonio fired. His hands trembled and the rifle shook; nothing happened. He fired again and again, gasping in his fear. And he missed every time.

The cross-marked bullets crashed into red earth and splashed from naked rock all about the Qui-Em vehicle. When sparks spaf from a flint pebble, the pilot of the mountain lion realized that there was actual danger here. It could have slaughtered man and dog and sheep by the quiver of a tentacle, but that would have ruined them as specimens. To avoid spoiling specimens it intended to take later, the Qui-Em put the mountain-lion shape into a single, magnificent leap. It soared more than a hundred feet up-hill and over the crest at its top; then it was gone.

Salazar ran barking after the thing at which Antonio had fired, sniffed at the place from which it had taken off. There was no animal smell there at all. He sneezed, and then trotted down again, Antonio lay flat on the ground, his eyes hidden, babbling. He had seen irrefutable proof that the shape of the mountain lion was actually a fiend from hell.

3

EHIND THE hill-crest, the Oul-En moved a way. It had not given up its plan of selecting specimens from the flock, course, nor of anatomizing the man and dog. It was genuinely interested too. in the biped's method of defense. dictated its own version of the problems raised, on a tight beam to the wavering, color-changing flame. Why did not the biped prey on the sheep if it could kill them? What was the symbiotic relationship of the dog to the man and the sheep? The three varieties of animal associated freely. The Oul-En dictated absorbed speculations, then it hunted for other specimens. It found a lobo wolf, and killed it, verified that this creature also could be a source of hormones, It slaughtered a chipmunk and made a cursory examination. Its ray-beam had pretty well destroyed the creature's brain-tissue, but by analogy of structure this should be a source also.

In conclusion, the Oul-En made a note via the wavering pinpoint of flame that the existence of a hormone-bearing nervous system, centralized in a single mass of hormonebearing nerve-tissue inside a bony structure, seemed universal among the animals of this planet. Therefore it would merely examine the four other types of large animal it had discovered, and take off to present its findings to the Center of its race. With a modification of the ray-beam to kill specimens without destroying the desired hormone, the Qul-En could unquestionably secure as much as the race could possibly need. Concentrations of the local civilized race in cities should make large-scale collection of the hormone practical unless that civilized race was an exception to the general nervous structure of all animals so far observed.

This was dictated to the pin-point flame, and the flame faithfully wavered and changed color to make the record. But the tape did not record it; a rather large beetle had jammed the tape-reel. It was squashed in the process, but it effectively messed up the recording apparatus. Even before the tape stopped moving, though, the record had become defective; tiny spiders had spun webs, earwigs got themselves caught. The flame, actually, throbbed and pulsed restlessly in a cobwebby coating of gossamer and tiny insects. Silverfish were established in the plastic lining of the Qul-En ship; beetles multiplied enormously in the air-refresher chemical; moth-larvae already gorged themselves on the nest-material of the intrepid explorer outside. Ants were busy on the food-stores. Mites crawled into the ship to prey on their larger fellows, and a praying-mantis or so had entered to eat their smaller ones. There was an infinite number of infinitesimal flying things dancing in the dark; larger spiders busily

spun webs to snare them, and flies of various sorts were attracted by edors coming out of the ventilatoropening, and centipedes rippled

sinuously inside ...

Night fell upon the world. The pseudo-mountain lion roamed the wild, keeping in touch with the tide of baa-ing sheep now headed for the lowlands. It captured a field-mouse and verified the amazing variety of planetary forms containing braintissue rich in hormones. But the sheep-flock could not be driven at night. When stars came out, to move them farther became impossible. The Qul-En returned to select its specimens in the dark, with due care not to allow the man to use his strange means of defense. It found the flock bedded down.

ALAZAR and Antonio rested; they had driven the sheep as far as it was possible to drive them, that day. Though he was sick with fear and weak with horror, Antonio had struggled on until Salazar could do no more. But he did not leave the fock; the sheep were in some fashion against the creature which so plainly was not flesh and blood.

was not riesh and bloods. because he was not riesh and blood and a for for syng in the dark. Moths came and fluttered about the flames, but he did not notice. He tried to summon courage. After all, the unearthly thing had fled from bullets marked with a cross, even though they missed; with light to shoot by, he might make a bullseye. So Antonio sat shivering by his fire, cutting deeper crosses into the points of his bulleting will be the type of the bulleting will be the type of the shoot by the first of the bulleting will be the type of the shoot by the first of the shoot by the shoot by the first of the bulleting will be the type of the shoot by the shoot by

Salazar dozed by the fire. He had had a very hard day, but even so he slept lightly. When something howled, very far away, instantly the dog's head went up and he listened. But it was nowhere near; he scratched himself and relaxed. Once something hissed and he opened his evers.

Then he heard a curious, strangled PBas-a-a' Instantly he was racing for the spot. Antonio stood up, his rifle clutched fast. Salazar vanished. Then the man heard an outburst of infuriated barking; Salazar was fighting something, and he was not afraid of it, he was enraged, Antonio moved toward the spot, his rifle ready.

The barking raced for the slopes beyond the flock. It grew more enraged and more indignant still. Then it stopped. There was silence. Antonio called, trembling. Salazar came padding up to him, whining and snarling angrily. He could not tell Antonio that he had come upon something in the shape of a mountain lion, but which was not--it didn't smell right-carrying a mangled sheep away from its fellows. He couldn't explain that he'd given chase, but the shape made such monstrous leaps that he was left behind and pursuit was hopeless. Salazar made unhappy. disgusted, disgraced noises to himself. He bristled; he whined bitterly. He kept his ears pricked up and he tried twice to dart off on a cast around the whole flock, but Antonio called him back. Antonio felt safer with the dog beside him.

Off in the night, the QuI-En operating the mountain-linon shape caused the vehicle to put down the sheep and start back toward the flock. It would want at least four specimens besides the biped and the dog, but the dog was already on the alert. The QuI-En had not been able to kill the dog, because the mouth of the lion was closed on the sheep. It would probably be wisest to secure the dog and biped first—the biped with due caution—and then complete the choice of sheep for dissection.

The mountain-lion shape came noiselessly back toward the flock. The being inside it felt a little thrill of pleasure. Scientific exploration was satisfying, but rarely exciting; one naturally protected oneself adequately when gathering specimens. But it was exciting to have come upon a type of animal which

would dare to offer battle. The Qul-En in the mountain-lion shape reflected that this was a new source of pleasure—to do battle with the fauna of strange planets in the forms

native to those planets.

The padding vehicle went quietly in among the wooly sheep. It saw the tiny blossom of flame that was Antonio's campfire. Another high-temperature oxidation process... It would be interesting to see if the biped was burning another carcass of its own killing...

THE SHAPE was two hundred yards from the fire when Salzara scented it. It was upwind from the dog; its own smell was purely that of metals and plastics, but the fur, now, was bedablied with the blood of the sheep which had been its first specimen of the night. Salzara growled. His hackles rose, every instinct for the defender of the second with the salzara growled with the salzara for the defender of the salzara for the salzar

He went stiff-legged toward the shape. Antonio followed in a sort of despairing calm born of utter hope-

lessness.

A sheep uttered a strangled noise. The Qui-En had come upon a second specimen which was exactly what it wished. It left the dead sheep behind for the moment, while it went to look at the fire. It peered into the flames, trying to see if Antonio—the biped had another careass in the flames as secmed to be a habit. It looked...

Salazar leaped for its bloodsmeared throat in utter silence and absolute ferocity. He would not have dreamed of attacking a real mountain-lion with such utter lack of caution, but this was not a mountainlion. His weight and the suddenness of his attack caught the operator by surprise, the shape toppled over. Then there was an uproar of scared bleatings from sheep nearby, and bloodthirsty snarlings from Salazar. He had the salty taste of sheen-blood in his mouth and a yielding plastic throat between his teeth.

The synthetic lion struggled ab-

surdly. Its weapon, of course, was a ray-gun which was at once aimed and fired when the jaws opened wide. The being inside tried to clear and use that weapon. It would not bear upon Salazar; the Qul-En would have to make its device lie down, of the work of t

That took time, because whenever Salazar's legs touched ground he used the purchase to shake the throat savagely. In fact, Antonio was within twenty yards when the being from the ship got its vehicle upright. It held the mechanical head high, then, to keep Salazar dangling while it considered how to dislodge him.

And it saw Antonio. For an instant, perhaps, the Oul-En was alarmed. But Antonio did not kneel; he made no motion which the pilot-seeing through infra-red-sensitive photocells in the lion's eveballs-could interpret as offensive. So the machine moved boldly toward him. The dog dangling from its throat could be disregarded for the moment. The killing-ray was absolutely effective. but it did spread, and it did destroy the finer anatomical features of tissues it hit. Especially, it destroyed nerve-tissue outright. So the closer a specimen was when killed, the smaller the damaged area.

The being inside the mountain-lion was pleasantly excited and very much clated. The biped stood stock-still, frozen by the spectacle of a mountain-lion moving toward it with a snarling dog hanging disregarded at its throat. The biped would be a most interesting subject for dissection, and its means of offense would be most fascinating to analyze...

Antonio's fingers, contracting as the shape from the ship moved toward him, did an involuntary thing. Quite without intention, they pulled the trigger of the rifle. The deeply cross-cut bullet seared Salazar's flank, removing a quarter-inch patch

(Continued On Page 94)

the Miniature Menace

A THRILLING NOVELET

★ by Frank Belknap Long ★

Condemned without trial for his refusal to open fire on an alien space-craft, Ralph Langford had to be free to investigate the strange menace from beyond the stars? For if the alien were an enemy, then it would be the most terrible enemy men had ever encountered.

HE SKY was harsh with the flare of rocket jets when Captain Ralph Langford emerged from his deep space cruiser on the Mars City landing field. There was a girl standing alone at the far end of the field, and for a moment Langford thought it might be Joan, irrational as the thought was. Of course, Joan couldn't be here: he was to see her at the hospital. He started across the field, blinking in the glare, his eyes shining with a warm grateful-ness to be home again; as he approached the solitary figure, he could see it was not Joan, though there was a resemblance. He was so engrossed that he didn't notice the tall, eagle-eyed young Patrol officer who came striding toward him, until he heard the man's voice.

"You're under arrest, sir!" the youth said, his hand whipping to his visor. "Commander Gurney's orders."

Langford looked up suddenly, then stiffened in belligerent protest. "Hold on, Lieutenant! You can't arrest me and march me off to jail like a common criminal. Commission regulations! How long have you worn those stripes, youngster?"

The youth's eyes were respectful, sympathetic; he did not appear to be offended. "I'm sorry, sir," he said firmly. "Commander Gurney went before the Commission and had you certified as irresponsible."

Langford flushed angrily. "Sthat's it," he grunted.

The Patrol officer hesitated. He

had prepared what he intended to say, but the fame of the big man facing him had reached sunward to Mercury, and outward to Pluto's frozen tundras.

Langford's fist lashed out suddenly, catching the youth flush on the jaw, and crumpling him to his knees. The girl, who had been a silent witness up to now, gasped, then turned and ran like a frightend rabbit. Langford did not stop to apologize. Rumor had it that deep space officers bore charmed lives, but Langford knew as he broke into a run that his life hung by a thread that might at any moment turn crimson.

No part of the field was unguarded. If the guards had orders to withhold their fire he saw a desperate to chance of outwitting them; but if they had orders to blast, his fate was already sealed. As he ran he had a already sealed. As he ran he had a vision of himself sinking down in a welter of blood and blackness, his ears deafened by the hollow chant of concussion weapons. He saw himself lying spread out on the landing field, the taste of death in his mouth, the taste of death in his mouth, the air above him filled with a harsh, ecrie crackling.

He ran faster, ran like a man bemazed, his eyes filled with dancing motes that kept cascading down both sides of his oxygen mask. He was a hundred feet from the ship when he became aware that a dozen armed guards had emerged from shadows at the edge of the field and were converging upon him.



night and the field seemed to tilt as the guards came racing toward him. Far off in the darkness a siren wailed.

Langford suddenly realized that he was becoming light-headed from too much oxygen intake; his head was filled with a dull roaring, and seemed to be expanding. It was filled with flashing lights as well as sound, was leaving his shoulders as he ran.

Was leaving his shoulders as he ran.

He had a sudden impulse to laugh
and shout, to whoop at how ridicu-

shoulders and was spinning about in the air. But before he could grasp the tube which was flooding his brain with hilarity armed guards were all about him, raising their weapons to cover him and shouting at him to raise his arms.

Unfortunately he couldn't seem to move his arms. When he made the effort he went plunging and skidding over the ramp with running figures on both sides of him. He was skating, cutting capers on ice. Fantastic and incredible capers. Then the ice was inside his skull, swelling up thick; his heels were together when the lights in his head went out.

HEN THE lights came on gain Langford found himself stumbling forward into a blank-walled room with a steady pressure at his back. At first he thought the room was a cell, but when his vision adjusted itself to the glare he saw that he was facing a seated man whose head seemed to be dancing in the air.

"Here he is, Commander!" a harsh voice said. "He blacked out, but that didn't stop him from putting up a tarrific fight!"

Langford had no recollection of putting up a fight, but the guard's jaw was bruised and swollen, which seemed to indicate that a struggle had taken place. A massive desk swam into view and the head of the seated man settled down on his shoulders.

Langford blinked. Facing him in the cold light was the supreme commander of the Solar Patrol, a thin, hollow-cheeked man of fifty whose eyes behind narrowed lids glittered as cold as plass.

Commander Gurney's immobility was not unlike the roll of thunder in a vacuum. There was sound and fury to it, and yet not a muscle of his face moved as he dismissed the guard with a curt nod, and waited for the massive door behind Langford to clang shut.

The instant silence settled down over the room Commander Gurney came to life. "You're under arrest, Langford," he said, quietly. "If you've anything to say in your own defense you'd better start talking. I can spare you—" the patrol commander glanced at his wrist watch—"Exactly twenty minutes."

"Good enough!" Langford grunted. All the muscles of his gaunt face seemed to pull together as he seated himself. For an instant he remained motionless, his eyes troubled and angry, as if he could not quite accept the fact that he had been deprived of his command by the irate man opposite him.

The two men who sat facing each other in the cold light were sharply divergent types. Langford was a man of enormous strength and a temper that was just a little dangerous when it got out of control. He had never once failed in his duty and the inner discipline which he had imposed on himself showed in his features, which were as tight as a drum. But beneath his rough exterior Langford concealed the sensitive imagination of a poet, and an immense kindliness which sometimes overflowed strange ways, embarrassing him more than he cared to admit.

Commander Gurney had never experienced such embarrassment; he had imposed his will on the Solar Patrol by becoming an absolute slave to efficiency at considerable detriment to his health. There was something rapacious and hornetlike about him, something ceaselessly after. Now stinging contempt in his stare, poised for the attack, his harsh features mirroring his thoughts like an encephalograph. Well?" he prodded.

Langford wet his dry lips. Reaching inside his resplendent uniform, he removed a small, shining object which he set down at the edge of his at us when I ordered them to stand by for boarding," he said. "It was contained in a small, translucent capsule which I picked up with a marnetic trawl. It's just a model in miniature, but take a good look at it, similature, but take a good look at it, and the said of the s

Commander Gurney's eyes widened and his mouth twitched slightly. "In the name of all that's unholy, Langford, what is it?" he mattered.

Langford shook his head. "I wish I knew, sir. It looks quite a bit like a praying mantis. A little, metallic praying mantis six inches tall. But it doesn't behave like one!" THE STATUETTE on Gurney's desk seemed chillingly lifelike in the cold light. It had been fash-loned with flawless craftsmanship; its upraised forelimbs were leaf green, its abdomen salmon pink, and its gauzy wings shone with a dull, metallic luster as Langford turned it carefully about.

Gurney couldn't help noticing, with a little shudder, that its mouthparts consisted of a cutting mandible, and a long, coiled membrane like the ligula of a honeybee. Huge, compound eyes occupied the upper half

of the metal insect's face.

Gurney's hand had gone out, and was about to close on the little statue; but something in Langford's state made him change his mind. As his hand whipped back he fastened his gaze on Langford's face with the ire of a peevish child denied access to a jampot.

"What in blazes has that to do with your failure to obey orders?" he demanded, with explosive vehemence. "That ship must have used an interstellar space-warp drive to appear out of nowhere in the middle of the Asteroid Relate And you deliberately.

out of nowhere in the middle of the Asteroid Belt. And you deliberately let it slip away from you!" Langford shut his eyes before re-

Langrord sut us eyes before replying. He saw again the myriad
stars of space, the dull red disk of
Mars and the far-off gleam of the
great outer planets. He saw the liminous hull of the alien ship looming up out of the void. An affile
which a principle of the same stars
with a faint nebulosity behind
then. The ship had appeared with
the suddenness of an image forming
on a screen, out of the dark matrix
of empty space.
Langford leaned forward, a des-

perate urgency in his stare. "Mere alienage doesn't justify the crime of murder, sir!" he said. "Attacking an alien race without weighing the outcome would have been an act of criminal folly, charged with great

danger to ourselves."

Commander Gurney shook his head in angry disagreement. "Just how would you define murder, Langford?" he demanded. "If a highly intelligent buzzsaw came at you would you bare your throat?"

Langford ignored the question, "Violence breeds violence, sir," he said, with patient insistence. "Suppose the shoe were on the other foot. Suppose the inhabitants of another planet attacked you without giving you a chance to prove your friendliness?"

Langford's eyes held a dogged conviction. "Remember, sir-to issue a warning is an act of forbarance. No reasonable man could mistake a warning for an aggressive act. If their weapons are superior to oursely terrifying ways, they proved their friendlines by warning us. Would you have had me attack their ship without studying that warning?"

Gurney's eyes had returned to the glitter of its folded wings. He had a sudden vision of the metal insect spreading its wings and taking off with a low, horrible droning.

Suddenly there was a dull throbbing in the Partol commander's temples. A frightful dread took possession of him, so that he could hardly breather, in his mind's gaze he saw a vast, stationary plain that seemed to hang suspended in midair above a fiery sea. Sweeping straight toward him, dark against the glow, were hundreds of flying mants shapes with their arms upraised in the glow. Curney shuddered and gripped the

arms of his chair. He transfixed Langford with an accusing stare. "Man, if you'd engaged them in open combat we'd at least know where we stand! We could have put the entire patrol on the alert. Now they've given us the slip and may show up anywhere, armed with weapons that could wipe out civilization overnight."

"I chose what I believed to be the lesser of two evils, sir," Langford said, stepping closer to the desk. His eyes rested briefly on the metal insect; then they returned to Gurney's face.

"There were two metal insects in

that capsule, sir. I'm going to show you exactly what happened to the one I experimented with."

ANGFORD'S forefinger whipped out as he spoke, striking the little statue sharply on its folded wing membranes. For an instant nothing happened; then, with appalling suddenness, the metal insect came to life. It spread its wings and ascended straight up into the air.

Gurney leapt to his feet with a startled cry. As he did so the flying insect's wing blurred and another pair of wings came into view behind them. The wings were shadowy at first, but they quickly solidified. taking on a glittering sheen. Preying arms sprouted from them. Then, even more quickly, a big-eyed head and a writhing, salmon-pink abdomen.

The instant the second shape became a complete insect it whipped away from its parent image with a furious buzzing. As Gurney stared up in horror the original insect gave off eight more buzzing replicas of itself. They darted swiftly up toward the ceiling and circled furiously about, their wings gleaming in the cold light.

Suddenly there was a blinding flash of light. The flying replicas vanished and the original insect thudded to the floor. For an instant the little horror squirmed; then lay motionless.

"It's playing possum!" Langford said.

Langford advanced as he spoke and raised his foot. The instant he started to bring his heel down the metal insect shivered convulsively. lifted its huge eyes and stared up at him.

Then an incredible thing happened. There was no need for him to crush the insect; methodically and with cold deliberation it began to dismember itself, tearing off its wings with its own sharp claws, and ripping its abdomen to shreds. After a moment, it lay still.

Langford turned and stared soberly at Gurney. "If we wanted to warn them we could send them a little mechanical man, complete in every detail armed with miniature weapons. They've simply sent us a replica of themselves, a model in miniature. It's so unbelievably complex that we could learn nothing by subjecting it to mechanical tests. But we don't have to know what makes it tick.

"They've warned us that they can multiply by fission, so rapidly that they could overrun the Earth in a few hours: they've also warned us that if they find themselves facing impossible odds, they won't hesitate to destroy themselves."

Commander Gurney had returned to his desk and stood facing Langford, his face as grim as death. quite agree," he said. "That was-an ugly warning. Langford, letting that get away was worse than treasonable. Your twenty minutes are

He was reaching for the communication disk on the far side of his desk when Langford reached inside his uniform for the second time. When the big man withdrew his hand he was clasping an automatic pistol. Gurney took a swift step backward. his eyes widening in alarm, "So the guards forgot to search you!"

"I'm afraid they did, sir!" Langford said, quietly, "Sit down, I'm going to ask a small favor. A port clearance permit, signed and sealed by you; if you give me your word you won't move until I've cleared the port I won't tie you up."

Langford sat down and stared at the young space officer in scornful mockery. "Suppose I refuse to promise anything. Would you blast me down in cold blood?"

Langford hesitated. His jaw tightened and a candid defiance came into his stare. "No!" he said.

"Then if you're not prepared to murder me you haven't got what it takes to exact a promise!" Gurney said.

Langford shook his head. "That's sheer sophistry," he pointed out. "I've just laid my cards on the table. If you take advantage of my good faith you'll be hitting below the belt. You see, sir, there's something I've

got to do; if I fail I'll come back and

give myself up."

For a moment not a muscle of Gurney's face moved. Then he shrugged and glanced at his wrist watch. "I'll sit perfectly still for exactly fifteen minutes, Langford," he said. "That should give you sufficient time to clear the port."

His eyes narrowed to steely slits. "But heaven help you when I move?"
"Fair enough!" Langford said.

Ten minutes later the Patrol captain was climbing into a small jet plane at 'the edge of the spaceport. Far to the east the skyline of Mars City rose above the horizon like a glittering copper penny swimming in a nebulous haze. A penny flipped in desperation that had miraculously come heads.

Part of the wonder he felt was due to his knowledge that he would soon be flying straight through the penny toward a tall white building he would have braved the sun to scale.

9

GRAVE-FACED physician met Langford at the end of the corridor and beckoned him into a small white-walled room. The physician was not talkative; he didn't need to be. The girl who sat under the bright lamps with her eyes swathed in bandages told Langford all he cared to know.

Her lips were smiling and she held out her arms as her husband came into the room. Langford went up to her, and kissed her tenderly on the cheek, his big, awkward hands caressing her hair that lay in a tumbled dark mass on her shoulders.

She had tried to keep back the tears, but they came now, so that her body quivered with the intensity of her emotion. "I'm going to see, darling!" she whispered; "I know I'm going to see again. I wouldn't let them remove the bandages until you came."

"Sure you are!" Langford said, gruffly. "And you'll have better sight than ever before! Both kinds of sight, just as you had before!" "I was afraid you might be hurt, darling!" Joan Langford whispered, running her forefinger down his wet cheek as she held his head close. "I used the other sight that makes me so different, and terrifies people much more than it should!"

"You should not have done that!" Langford said, scowling; "I was in no real danger!"

"You were being hunted like a

criminal?'
She turned her head toward Dr.
Crendon as she spoke. The physician
looked away, feeling her gaze on him

through the bandages.

"The law of compensation, child," he said, gently, "Mutants are clairvoyant; their vision is piercingly sharp where vision matters most. When nature confers a priceless gift are sometimes withdraws a lesser biologists." He smiled, "There I go, personifying the impersonal again. Perhaps ordinary sight will someday be vestiginal in all of us."

Langford glanced up. The physician was pressing his finger to his lips and gesturing toward the door. Langford got quickly to his feet. A chill wind seemed to blow into the room, driving all the warmth from

his mind.

Just outside the door Dr. Crendon turned and spoke in a cautious whisper. "I haven't given up hope!" he said. "But the chances are not too good, we don't know why, but mutants have defective vision from birth

even when their eyes are normal." Langford nodded, "I know that,

doctor!"

The physician's voice became gentler. "We know so little about mutants. Fifty thousand of them in the world, perhaps—bor too early or too late! An inward vision that can to the heart of things. And an outward vision that's defective, faltering, almost a blind man's vision. Clairvoyance and failing sight—it just doesn't make sense."

"Joan makes sense," Langford said.
"If she were stone blind I'd still wor-

ship her."

Dr. Crandon held his hands straight out before him and looked down at them. "I did my best," he said, simply. "There were slight peculiarities of structure in the chorold but I'm sure that the new cornea will adjust. It's the retina itself, the innermost nervous tunic of the eye, that I'm worried about."

He paused, then went on quickly:
"A mutant's retina is hypersensitive.
It responds to light in a peculiar
way and has a tendency to distort
images. But that distortion vanishes
when the mind becomes really ac-

tive."

Langford looked at him. "Just what are you trying to tell me?" "I'm not sure I know!" There

"I'm not sure I know!" There were little puckers between Crenden's eyes. "Put it this way, If She she doesn't brood too much, if she she an active life and has complete confidence in her inner vision, her sight may improve. I think the failure of a mutant's sight may be partly due to—well, a kind of fear. Mutant whatever that may be—and are tempted to use their inner vision as a means of scape. And when they do that the outer vision dims to the vanishing point."

"Then you think-"

"Make her feel that she can be of assistance to you in every moment of your waking life. Give her some important task to perform. Keep her with you, lad, as much as you can. She's missed you these many months. Make her realize you can't get along without her."

ANGFORD'S EYES held a dawning wonder; he seemed like a man from whom an immense weight had been lifted. "I was just about to tell you that I need her inward vision," he said. "Not only the eyes you've done your best to restore, but her powers of clairvoyance."

"You mean that?"

"Why should I lie to you, doctor?"
For the second time Crendon smiled. "No reason, I suppose. But I thought you might be deceiving yourself by pretending you meeded

her when you didn't. You've been under something of a strain."

It was Langford's turn to smile. "You don't know the half of it."

"Oh, yes I do! She saw you crossing the skyport with scanner beams trained on you; she saw you playing hide and seek with annihilation. I had to give her a sedative injection to quiet her."

Langford did not move. Something in Crendon's face told him he was

not expected to say anything.
"So that makes me an accessary!"

Crendon said, the smile still on his lips. "Her vision went blank when I decided she'd seen enough for her own peace of mind."

He nodded. "I didn't know whether you managed to escape or not; it kept me on the tetherhooks until you showed up in my office twenty minutes ago. I've always liked you, Langford; I flatter myself I know an honest man when I see one."

His hand went out and tightened on Langford's paim. "Come on, now! We've got to remove those bandages before she reads my thoughts, and knows how seared I get when I operate. Mutants know what humbugs we all are, Langford; they can see all the flaws in us, and if they can still trust us and believe in us despite that, they must be the forerunners of a new humanity in more ways than we dream!"

If Joan Langford had eavesdropped, using her strange sight, she gave no sign when her husband returned to her side. The conversation in the corridor had taken him from her for the barest instant, but that instant had seemed like an eternity to Langford and the inner vision of his wife.

For how could 'time' be measured in minutes or hours by a woman wearing a blindfold, shut away in the dark, and waiting a werdiet that could cause the future to slough away into chill guils? And how could 'time' chill guils? And how could 'time' and the could be should be sho

measured by the moving hands of a clock?

clock?
Ouickly Langford's fingers inter-

locked with those of his wife. "This is it, darling!' he said.

Crendon's fingers fumbled a little as he turned Joan's head gently from the light and began to unwind the bandages.

"Don't open your eyes until I've removed the gauze pads," he warned. "And don't look directly at the light. At first you may not see at all; you must be prepared for that."

RENDON HATED himself for his serrness, but experience had taught him that it was best to arouse a faint antagonism in his patients; it prevented them from regarding him as a miracle worker. He wanted them to face reality with courage, for healing depended on many things and was often a matter of blind, fanatical trust.

"Now then!" he said.

As he spoke he raised the last fold of the bandage, and carefully removed the small, moist pads beneath one from each eye. He straightened, his back to the light.

Langford looked away quickly. As though from a great distance he heard Crendon say: "Now you may open your eyes. Remember, you may not see at all for five full minutes!"

Mentally he added: Or evert I shouldn't be discouraged, A man does what he can. Ten years of it, ten years of trying to save human sight. And every day I learn something, And every day I envy men who endure merely the loneliness of space. Why pretend? I have never leit compassion for humanity in the abstract. It is only when I look into eyes that I have tailed to heal and the compassion for mental took into eyes that I have tailed to heal and the company of the compa

"Dr. Crendon, I can see! Everything— clearly."

And so it was that Dr. Crendon moody, skeptical Dr. Crendon—received the greatest shock of his life. He had anticipated an agonized outcry—or a joyous one. But Joan had spoken hardly above a whisper, in a bone of quiet assurance, as if she had known all along that she would see. And suddenly Crendon realized that she had known! For mutants could see into the most probable future! Not too clearly, but clearly enough! How could he have been so

blind

As Crendon turned he saw that Langford had fallen to his knees beside his wife and was sobbing convulsively, his head cradled in her arms. He tiptoed softly out of he room. He felt curiously hollow inside, as though all capacity for emotion had been burned out of him by the corroding acid of his own skepticism.

3

was replacing the bandages on Joan's eyes. He felt like a man who was playing a game with a deadly, unseen antagonist in a room full of crouching shadows. No-not a room. As he bent above his wife, his hand on her tumbled hair, away into darkness. And now he was gazing straight down the interplanetary deeps at a green world swimming in a nebulous haze. The haze dissolved, drifted away, and he saw the green hills of his native land.

He saw the earth, and crouching shadows covered the face of the land. The crouching shadows of enor-

mous insects. He could not escape from them because they were everywhere; when he broke into a run the mantis shapes followed him. They towered above him, sinister, horrible. He felt like a man eaught in an invisible trap, the sky hemming him in, the ground beneath his feet a dissolving quagmire.

He shook the illusion off, for he did not want Joan to see the shadows as he saw them. What was it Crendon had said? She must be made to feel that you need her. Well, he did, he knew now that more than his own honor was at stake. If the alien ship could not be located his fears would not remain subjective. The fate of humanity hung in the balance.

His imagination had been stimu-

lated abnormally by the events of the past few days; now it was leaping ahead of developments. For all he knew to the contrary the alien ship had foundered in the void or crashed on one of the inner planets in a red swirl of destruction.

Interseller exploration was not without its risks and those risks would mount steadily to an alien intelligence as unfamiliar landmarks loomed up out of the void.

"You do not need the bandages," Langford said, a deep solicitude in his voice. "If you simply shut your eyes you would see the ship clearly. My thoughts would guide you to it."

"My vision is sharper when my eyes are bandaged," Joan replied.
"You must trust me, darling; I know. When my eyes are sealed there is no emotional block and my inner vision has free play. I am prevented from using my eyes by an actual physical impediment. So I strain all of my faculties to see as far as I can in the dark. Call it a psychological quirk if you wish; I only know that it helos."

"If it helps that's all that matters," Langford assured her. "Forget I put

my oar in."

"Don't think about the ship for a minute," Joan said, "Make your mind a blank. Then visualize yourself standing before the viewport staring out, just as you stood when you first saw the allen ship. Visualize the ship coming toward you through the void, If you can visualize it clearly I'll be able to locate it, no matter where it is now."

Joan paused, as though she didn't quite know how to make the complexity of the problem clear to her husband. 'I can't explain the power,' she said; 'I know so little about time,' far less than the physicists think they know. Mutants, they tell us, can visualize 'time' as a stationary dimension, 'freezing all event objects in the past and in the 'probable future'. They can travel along 'time' in either direction at will.'

"But you do not think of it as an

actual journey?" Langford asked; "you merely shut your eyes and see?"

Joan shook her head. "It isn't quite as simple as that Clairvoyance is never simple; it's accompanied by an intense inward illumination. It's a little like staring at something through a long vista of converging prisms. Objects get in the way and there's doubt, uncertainty. Sometimes it's sheer tormet.

"Sometimes I can't see at all. And even when I can see there's a curious, almost terrifying sense of wrongness

about 1

"You mean you feel guilty?" Joan smiled slightly. "Did Alice feel guilty when she went through the looking glass? Perhaps she did! But I didn't mean that kind of wrongness, not a moral wrongness. It's as though the strange tensions will get you if you don't watch out. Rush in upon you and project you place. forcibly into another though you were a jet of steam imprisoned in a bottle that's much too tight and forced in the wrong direction by a power you can't begin to understand.

"You keep fearing you'll get caught in the neck of the bottle and wake

up screaming."

"Good Lord!" Langford muttered.
"I've never got caught," Joan said.
"Now make your mind a blank, darling. We're going to find that ship!"

MOMENT later Langford stood holding his wife's hand, a sharp apprehension in his stare. Joan seemed slightly agitated. She sat gripping the arms of her chair, her bandaged eyes turned from the light.

Suddenly her lips moved. "Ralph, I can see the ship! It's coming straight toward the viewport. You didn't tell me it was so beautiful, so

-so huge!"

"I was waiting for you to tell me!" Langford said, quickly.

"Well, I'm telling you, darling! I'm glad you didn't completely visualize it. Now I'm sure I'm not just reading your mind. It must be three hundred feet long; it's hard to tell where the illumination comes from."

Joan straightened suddenly. "It's no longer just a ship," she said. "I'm still outside, but I've moved closer to it. And I can sense a rustling deep inside the hull. a vague stir of activ-

ity that's not entirely physical."
While Langford held his breath
Joan pressed her palms to her temples. "The rustling is becoming clear.
There are swift, abrupt movements,
accompanied by thoughts. But I'm
not sure whether the thoughts come
from one mid or many middle from the companied of th

Her voice rose slightly. "I can sense a living presence deep inside the ship. More than one, I think. There's a kind of swarming."

"A swarming?"

"I'm not sure about that," Joan said, quickly. "I don't think they're moving about much. The thoughts seem to come from one direction. I can just make out a shape now; it's tall, and very slender."

"Winged?" Langford whispered.

"No, no, don't prompt me!" Joan was excited. "The important thing is that I can see it. I may never see it clearly. Gauzy—yes, it is winged. It has gauzy, shining wings, folded on its chest. Two clawlike appendages, raised in a praying attitude. Perhaps I saw that in your mind; you mustry intercrupt again."

you mustn't interrupt again."

"I won't!" Langford promised.

"The creature is horribly agitated!"
Joan said. "It looks upon your ship
as a menace. Its brain is humming
with fear; it is preparing to contact
you, warn you. It's getting ready to
warn you in a strange way. It has
prepared something for just such an
prepared something for just such an
enting. I can't make it our, but it's
putting the object into a luminous
shell!"

"That's right!" Langford said, forgetting his promise. "They shot the shell into the void; we picked it up with a magnetic trawl."

There was a brief silence as Joan

thought that out. Then her lips twisted in a strained smile. "If you say another word—"

"Sorry!"

"It's bad; it hinders." She raised her arms in a gesture of grim urgency. "Now the ship is moving swiftly away from your ship. I can dimly sense vast distances rushing past. And there's a feeling of lone-exactly; it's as though I were sensing the utter desolation of deep space through a mind filled with a bitter nostalgia!

"If the feeling wasn't so intense, so strange and bewildering, I'd say it was a Carry me back to old Virginia' feeling! Does that make sense to you; It's like—someone thrumming a guitar a billion miles from home, whistling to keep up his courage, remembering something very precious and beautiful lost forever. I can't explain it in any other way."

She was silent for a moment. Then she said: "Now a planet is taking shape in the darkness. It's pale green and crossed by long, wavering streamer of light. I can make out con-

tinents and seas."

Joan stiffened. "Ralph! There's only one planet in the Solar System that catches the sunlight through great swarms of mereors in the plane of its ecliptic. The lights of the Zodiac! It must be the Earth!"

ANGFORD dared not speak for a fear of breaking the spell. Joan was trembling now, as though thoughts from the past were imping; with a tormenting intensity on her inner vision.

"The ship's out of control?" came

suddenly. "It's plunging down through the lower atmosphere toward a vast expanse of jungle. A tropical rain forcest. A mist is rising over the trees and a burst of flame is coming from the ship. It's zigzagging as it descends."

Emotion seemed to quiver through her. For a moment she remained silent, her lips suightly parted.

Then more words came in a rush. "The ship lies on an island in a forking river. Above it the foliage is charred, blackened. There are three rivers and just below the island the water is white with foam. There's a tremendous cataract about five miles below the island. It's the largest cataract water the services."

There was an eagerness on Langford's face, but he remained silent

"There's a man swimming in the river above the cataract," Joan went on. "A brown-skinned man with straggly hair, his shoulders gleaming in the sunlight. I'm going to try to read his mind."

Langford did not move. For a moment there was no sound in the room save Joan's harsh breathing. Then, suddenly, she straightened and ripped the bandage from her eyes.

"Brazil!" she exclaimed, exultantly. "Darling, I've located the ship for you. That island is in the interior of Brazil, in the deep jungle, close to the headwaters of the Amazon!"

the headwarers of the Amazon:
Langford stood very still, scarcely daring to breathe. In his mind's
gaze he saw a slender space cruiser
lying unguarded in a suburban hanger close to the dark waters of the
great Northwestern Canal. Commander Gurney's own private cruiser,
the White Hawk!

How much of his mental audacity was inspired by sheer desperation Langford could not guess. But he suddenly saw himself climbing out of a thrumming jet plane in deep shadows and running straight toward the cruiser with Loan at his side.

He saw the cruiser ascending, saw himself at the controls, with the red disk of Mars dwindling beyond the viewport. He saw the myriad stars of space and the rapidly expanding disk of the Earth pierced by wavering banners of light.

And then it dawned on him that in some strange way Joan had seen the vision first and was sharing it with him. He knew then that he could not fail.

4

ENEATH the descending cruiser the roof of the forest gleamed in russet and emerald splendor above a labyrinth of wooded archinelagoes.

It still seemed a little like a dream to Langford, but he knew that it wasn't. The vision that he had experienced three days before, standing beside his wife in a white-walled room, had taken on the bright, firm tayture of reality.

He stood before the controls, with a thrumming deck under him, and studied the shifting landscape through the White Hawk's viewpolithe. He had never before flown directly over the Amazon Basin, and a rive of shining wonder seemed to flow into his mind as he stared.

It was Joan who broke the spell. She tugged gently at his arm, her face anxious. "I don't see any sign of the three rivers!" she exclaimed.

"Do you?"

Langford swung about "We haven't passed the great cataract of Itamaraca yet," he said. "It rushes straight along for five or six miles. Then it becomes the most impressive waterfall in South America. A few miles below the falls the river spreads out into a lake."

Langford turned back to the viewport. "When we see the lake we can look for another branching and the island. The island is right in the middle of the three rivers you saw in your vision. But it's just a dot on the electrograph. Are you sure it has a distinctive shane?"

"It has a high, rocky shoreline," Joan assured him. "The central tributary cuts it in half and the other rivers flow around it. It's heavily forested, but the rent in the foliage where the ship came down is so, wide you should be able to see it from ten thousand feet. The treetops are charred over a half mile radius."

Langford smiled and squeezed her arm. "I bet you'd be happy mapping the Amazon in a bark cance like a twentieth century explorer." he said. He grinned wryly. "A big rock island, mysterious as a cave of vamnire bats, bisects the largest tributary west of the Tocantins, and it's just a dot on an electrograph to us. We've explored every crevice of every world in the System, but sometimes I envy our ancestors: they had elab-

orate pictorial maps to guide them." After a moment the ship leveled off, and the Great Cataract swent into view. It was a shining whiteness between two towering walls of foliage festooned with hanging vines, and flame-tongued flowers upon which the red sunlight seemed to

It foamed and cascaded over jagged rocks, swept around little clumps of submerged vegetation, and tore at sloping mud banks glimmering in the

Then the cataract became a receding blur and the wide river split up. Langford heard Joan cry out.

THE ISLAND which loomed below was about eight miles in circumference and so heavily forested that it resembled a single shrub of wilderness proportions growing from a cyclonean stone flowerpot.

Its high banks were almost vertical. its summit a charred mass of foliage cleft by an enormous rent which funneled the sunlight downward to a circular patch of bare, scorched earth,

Something glittered on the forest floor, far below the blackened foliage. But whether it was the alien ship, or merely the glint of sunlight on the river which flowed completely through the island Langford could not determine from his aerial vantage point.

A divided island was really two islands, but Langford was in no mood for geological hair-splitting, Erosion had failed to efface the original. hoary uniqueness of that towering mass of jungle, and for all practical purposes it was one island still, its high banks and far-flung aerial traceries hemming it in, and sealing its teeming life in eternal solitude.

Langford turned and looked at

Joan with eyes that were meshed in little wrinkles of confidence. "I'm going to gun her down through that gap!" he said. "We could crash through anywhere, but the best way to locate a wreck is to hew close to the cinder line!"

He bent grimly over the controls. in his mind a vision of a great host of alien creatures rushing toward him through the forest, swarming over the ship, refusing to let him

He feared their weapons, which he had never seen. He remembered the little statue with its suicidal impulses, and its ability to shed force-

shell replicas of itself.

The ship thrummed as it swept downward, the lights in the control room blinking on and off. Lower it swept and lower. The blood was pounding in Langford's temples when a black-rimmed funnel of swirling brightness vawned suddenly before the viewport. The same instant the cushioning pressure of the anti-gravity jets made itself felt, holding the ship suspended above the roof of the forest until its atomotors ceased to throb.

The ship descended under its own weight amidst a slowly dissolving pressure field. Sweeping down between the fire-blackened trees, it circled slowly about and settled to rest on the soggy forest floor.

When Langford and Joan emerged a warm breeze, laden with jungle scents, swept toward them. They stood for an instant close to the air-

lock, staring about them.

No sound broke the stillness except the insistent hum of insects and the rustling of the vegetation on both sides of the ship. A few yards from where they were standing the ground sloped to the brown waters of a swift-running river, its surface flecked with white foam, and studded with little whirlpools that swirled with a darkly writhing turmoil as dry leaves fluttered down, twisting and turning in the breeze.

Twisting and turning above a limp form that lay sprawled on the riverbank, its bare shoulders horribly hunched, its head immersed in the

muddy brown water.

Ioan screamed when she saw it.

She broke from Langford's restraining clasp and went stumbling forward until she was knee-deep in the swiriing current. She was stooping and tugging in desperation at the half-submerged figure when Langford's hand closed on her shoulder.

"Let me handle this," he said, firmly; "it's no job for a woman."

On the bank Joan swung about to face him. "It's a job for a mutant!" she protested, her lips shaking. "You don't know how close he is to death. He's still breathing, but if we

don't get him out-"

She broke off abruptly when she saw that Langford needed no urging. He was already on his knees, tugging at the sprawded form. For a moment he tried to succeed from the bank, his knees sunk deep into the mud, his neckcords swelling. Then, with a gesture of fierce impatience, he waded deep into the water and lifted the unconscious man on his shoulders.

ANGFORD carried the man up the sloping bank, eased him to the ground and rolled him over. A small, wiry man, darkly bearded, his mouth hanging open! Staring down at the familiar face, Langford experienced a sense of irony so slarp and over-whelming it interfered with his breathing.

He leaned forward, and started working the man's arms slowly up and down. He knelt in the soft mud, a murk of depth and shadow looming behind him, a grim anticipation in

his stare.

Suddenly the man on the riverbank stirred, groaned and opened his eyes. "Hey, cut that out?" he grunted. "What in blazes are you trying to do, you devil? Wrench my arms from their sockets?"

"Good morning to you, Commander!" Langford said, chuckling. "Langford!" Commander Gurney's

"Langford!" Commander Gurney's eyes began to shine, as though lit by fires from unfathomable depths of space. A convulsive shudder shook him. Digging his fists into the mud, he sat up straight.

"You stole my ship!" he rasped, staring at Langford accusingly "What made you think I couldn't trace my own cruiser? You can't rip out infra-radiant alarm installations unless you know where to look. Didn't you know I'd follow you in a fast auxiliary cruiser and get here ahead of you?"

"I was afraid you might, sir!" Langford smiled ruefully. "But it was

a chance I had to take."

Gurney's eyes narrowed. "Your ship was sending out more automatic alarm rays than a chunk of radium. My men had orders to close in the instant you brought her down."

"Just where are your men now,

sir?" Langford asked.

Something happened to Gurney's face. His features twitched and the strained intensity of his stare increased so sharply he seemed to be staring right through Langford into

space.

"Those devilish things attacked ust" he muttered. "Exactly as that little statue did! There were dozens of them, ten feet tall, and they kept coming. We blasted, but the charges went right through them; they lifted my lads up in their devilish preying arms and dumped them in the river!"

Sweat gleamed on Gurney's brow.
"It was ghastly, Langford. In the
river—like pieces of dead timber. The
current carried them downstream. I
was helpless. I—I kept blasting, but

I couldn't save them!"

"How did you save yourself?"

Langford asked.

Gurney passed a dripping hand over his brow. "I was struggling with one of them when everything went blank. That's all I remember."

Langford stood up. "I don't understand it. Why did that creature go away and leave you with your face submerged? Why didn't it make sure you'd drift downstream too?"

"I'm sure I don't know, Langford!" Gurney jerked a tremulous hand toward the wall of foliage on the opposite bank. "Why don't you swim over to their ship and ask them? You'll find the ship in a clearing about three hundred yards from the bank. They've cleared a path to it."

"That's just what I intend to do!"

Langford said.

Joan paled and moved swiftly to his side, her eyes wide with alarm. "Ralph! You're not going alone—" Langford nodded. "I'm a pretty

good swimmer," he said.

Joan stared at him. "But why?"

"It's a little hard to explain," langford said. "You've got a picture in your mind of something pretty hortible happening to me. Somehow I feel that everything about that picture is wrong. I've got to cross that stream, darling; I'd be a pretty poor specimen of a man if I turned back now, when we're so close to the answer." Joan said nothing. She would have

argued and pleaded, but she knew that it would have been of no use.

was stripping on the river bank. He slipped into the water quietly, and struck out with powerful, even strokes. On the opposite bank he turned an instant to flick a wet strand from his forehead, and wave to his wife. Then he struck off into the forest.

He was a hundred feet from the bank, walking with his shoulders squared, when something bright and incredible swirled up from the forest floor directly in his path.

"For your forbearance, your kindliness, thank you, Langford!" a voice

said.

It was not a spoken voice. It was still and small and remote, and it seemed to come from deep inside Langford's head. Langford stopped advancing; he stood utterly rigid, his temples pounding, his eyes riveted on a derting shape of flame.

"Don't be alarmed, Langford," the voice said. "I'm not a shape of flame. But 1 can wrap myself in blinding flame so that the human eye cannot see me as I am."

"Who are you?" Langford heard

himself asking.

"A traveler blown from his course by ill cosmic winds!" the voice said. "A lone and bewildered stranger from a universe so remote its light has not yet reached you. A genuinely frightened stranger and—a telepath, Langford."

The voice paused, then went on. "I made you come to me just now. A promise of medals could not have done it, but I got inside your mind, and drew you to me. Meda's, rewards, promotions; you prize them, don't you? What a pity that I cannot stay until your tunic gleams with ribbons."

Another pause. Then the voice said: "It is difficult to get the intimate feel of your language. You must forgive me if my speech seems a little strained."

"Your speech. You-"

"You're not afraid of me, Langford? No, you mustin't be; you are the kindest of men. How can I convince you that I am—you have a phrase for it—letting down my hair? I shall leave you soon, my friend. I have repaired my ship, and I must try to return to my own people. But before I go I will tell you the truth."

NOTHER PAUSE while the brightness pulsed. "You could have destroyed my ship when we met in the Asteroid Belt with a single blast; but you refused to do so. And I, not knowing you as I do now, tried to frighten you. There are so many worlds where intelligent life is cold and merciless that I was prepared for any emergency. I am rather proud of that little multiplying creature I shot out into the void. It was a child's bauble in my world, Langford—a toy!

"I am alone, my friend. Alone in a ship that utterly dwarfs me. But you like large ships, too; we're curiously allike in some respects. We'd never be satisfied with mechanical mastery on a puny scale!"

"Mechanical mastery?" Langford's lips had gone cold. "Just what kind of mastery? Why did you attack Commander Gurney and his men?"

The shape of flame seemed to

pulse with a curious, inward merriment. Langford could feel the merriment beating into his brain, waves

upon waves of it.

"II didn't attack them. I can no more divide by fission than you can. But when I saw them crouching by the river, their faces merciless, waiting to seize you, I got inside their minds and drove them into the river.

"Like chattering monkeys they fled from the terrifying images I planted in their minds. They were prepared to believe I was not one, but many, a swarming multitude. They flour dered and swam until their strength dered and swam until their strength longer swim they dragged themselves from the river, and went floundering through the jungle, fleeing from shapes that had no real existence.

"Good Lord!" Langford muttered.
"Their weapons are now at the
bottom of the river. That stern and
silly little man, who is nothing more
than a jumble of bones, fell face down
in the river; before I could reach his
side you were lifting him up. You
will grumble and fume, but when he
sees my ship disappearing into deep
space you will wear ribbons, my
friend. You will become—yes, a
senior commander!"

"A senior-"

"Perhaps you'd like to see me as I really am, Langford, my friend! You'll promise not to laugh? I may look a little ridiculous to you."

Langford's eyes were suddenly moist. "You couldn't possibly look ridiculous to me." he said.

"Well... I wouldn't like to show myself to just anybody. Certainly not to Skin-and-Bones! But it's terribly important that you know how completely I trust you. How else can I prove my gratitude?"

SLOWLY the shape of flame began to contract. Its edges became brighter, sweeping inward to become a small, dazzling circle of radiance that hovered in the air like a blazing signet ring.

In the middle of the ring a tiny

form appeared. Amidet Langford's riching thoughts one thing stood out with mind-numbing clarity. The form was minute, so tiny that the mantis shape it had shot into the void would have utterly dwarfted it. The form was minute, and yet—it did reasonable it is pinpoint eyes fastened on Langford with a blazing intensity that seemed to bore deep into his brain.

But there was no enmity in that stare. Only complete gratitude, trust and friendship. Yes, and a certain

greatness

"Now you see me as I really am!"

Now you see me as I really am!"

That you could crush me between your thumb and forefinger. But I would not hesitate to alight on your thumb, my friend!"

A strange wonder throbbed in Langford's brain. And suddenly he found himself thinking: "Jimmy

Cricket

Yes, that was it! The tiny shape was as friendly, as puckish, as noble in essence as that little nursery rhyme will-o'-the-wisp. Jimmy Cricket. And it did look like a cricket; a

chirping, gleeful, truly great cricket. Suddenly down the long sweep of the years Langford saw two small human figures advancing over a path

of golden bricks toward a glittering distant palace.

One of the forms was himself, the other his sister. They moved in awe and terror, because the palace was an inhabited by a mighty wizard with truly terrifying powers. But when they reached the palace they met a human, likeable little man who wasn't that the mighty wizard was a humbug. But somehow in his simple humanness the wizard seemed even greater than he had been. Greater, but no longer terrifying.

Jimmy Cricket was—the Wizard of Oz. And he was something more. A lonely, wayfaring stranger, blown from his course by ill cosmic winds, taking reasonable precautions, but seeking only a responsive friendliness in the gulfs between the stars.

(Continued On Page 92)



Battle of the Unborn

by James Blish

There was a hidden war going on, war between the mutants and "normal" men. But only a few of the mutants could be recognized, and no "normal" max could be sure about his neighbor...

come; and yet, at the same time, he was fiercely eager to have it over and done with.

This was the show-down meeting.

R. BARNES stood reflectively before the heavy oak door, his

hand resting lightly upon the handle. In a way, he was reluctant to go inside and face what was to If it did not evolve into that, Barnes var ready to force it. His left hand carried a briefcase full of aces.

A hand touched him lightly on the shoulder. "Dr. Barnes—"

"Eh? Oh, it's you, Ling. What have you found?"

The Chinese technician, only very lately discovered among the long-scattered children of the labor gangs the Japanese had imported, made a curious gesture, as of a woman working a crude loom. "Everywhere. It is as we suspected, Dr. Barnes. I have tapped walls on every floor, and—in each one, I find the web."

"Have you tried cutting it?"

Barnes asked.

"Certainly," Han Ling said. "But it will not cut. Anything powerful enough to sever the strands would doubtless destroy the girders of the building as well."

Barnes frowned. Han stood silently, waiting for orders, stroking one lobeless ear absent-mindedly.

"And no current flowing in it? But Ling, that's hardly likely. It can't be putting out all that radiation from nothing. See if the power's being broadcast in. As a last resort, try an Ehrenhaft test."

"Enrenhaft? But—very well, Dr. Barnes." The young Chinese padded away. Barnes watched him until he disappeared into the polite maw of an elevator. Then, with a sudden, decisive gesture, he turned the handle and went in.

It was rather an anticlimax to find the big conference room still deserted. Barnes put his briefcase carefully upon the table before his usual seat, made sure the panel cursual seat, made sure the panel cursual closed, and walked over to the window.

It was an interesting vista, if not perhaps an inspiring one. The big white granite office building of the U.N. Atomic Energy Control Commission stood squarely in the center of what had been "old" Nagasaki, almost directly over the spot where the Bomb had fallen so long ago. Barnes could not remember that day, for he had been unborn then; but he

was here by a sort of scientific legacy, for his father had been a pile engineer at Hanford.

There was now little trace of the vast bowl of decolation that the Bomb had made—Nagasaki had rebuilt quite rapidly even before the U. M. had a consideration of the building was bed psychology. The Japanese did not think in terms of skyetzapers, and this one was an irresistible reminder of that mushroom of destruction of the track of the tra

No wonder that an occasional rattle of gunfire still drifted up to disturb the Mutation Control Board's

deliberations.

"Hullo, Barnesy. City-planning again?" Barnes turned. "Hello, Doull. You

might call it that."

Doull thumped his stocky body into a chair and chucked a brown portfolio onto the table with an impatient gesture. "Hope this is quick," he said. "Too damn nice a day to be squabbling over freaks. One thing that Bomb did, Barnesy, it cleaned off the nicest golf course in the whole of Asia."

Barnes returned to his seat, not bothering to conceal his loathing. A moment later Georg Brecht came in with his usual companion, Henry Flecknoe. The two were reported to be engaged in some kind of private physiological research, extraneous to their U. N. studies; Barnes reminded himself to inquire about the project some time.

"The Franciscan not here yet?" Flecknoe said.

"Is he ever on time?" Doull said testily. "The Franciscan" was their usual name for the Board's chairman, Sclustian Xavier Nakamura, D. Sc., F. S. F. In accordance with its usual policy, the U. N. Commission had picked a localite to head local activities; Nakamura they had dredged from a monastery on the edge of the city. Inarquably the man was a topnotch geneticist, his brilliance reminiscent of that other famous monk-



It was almost as if the terrible mushroom of the Bomb were still there in the sky, its deadly radiations streaming down on all.

geneticist, Gregor Mendel. But he was an intelerable person as Barnes meant to establish today.

THE DOOR flew open and Nakamura marched across the soft carpet to a nearly audible blare of trumpets. He oozed humility and rectitude. He planted his small frame at the head of the table like a Japanese

maple, and said, "Where is Ma-linov?"

"Sick in quarters," Flecknoe said. "A touch of radiation disease: he has been in the labs too much. He'll be all right."

"Very well," the Franciscan said. "Dr. Doull, you were speaking yes-terday of segregating known singledominant types. Will you proceed, please?"

"Not today," Doull said lazily.

"Dr. Barnes, you are next in order. Have you something to contribute on

the subject?" Barnes looked around the table, If

anyone else had urgent business he would be willing to vield. The glances he encountered, however, were merely attentive, except for Brecht's; he had something on his mind, probably something to do with the observation-camps, but evidently it wasn't of compelling importance. "I do," Barnes said. "Segregation I

regard as impractical and inhumane; I suggest immediate sterilization of all detected mutants, right down to the double-recessives

There was a terrible, thunderous silence. Flecknoe slowly turned purple. Doull gaped, apparently con-vinced that he had lost a word somewhere that would have changed the meaning. Brecht glared. Nakamura blinked politely

"Eggsplain," Brecht said.

"Gladly. I have evidence to show that the mutation-pattern in Nagasaki now shows a majority group; about 40% of the mutants which have been going through our clinics lately have shown the same pattern of physical differences, I will list them for you later."

They all remembered vividly one of the most recent mutations to gain public attention, a woman called the 'glowing girl' because of a visible, almost phosphorescence aura that surrounded her. And her body frame was light-so light that it seemed most of the time as if she were walking on air. ... It was as if the terrible mushroom of the Bomb were still there in the sky. its deadly radiations streaming down on all.

"Ve are nod empowered," Brecht said, "To eggsercize force against any mutants juzd because he has twelf fingers, or zome udder zuch abnormal-

"We are empowered to sterilize if

"Of course," Flecknoe said. "But

we don't get very many mutants who report to us voluntarily, and it's hard to judge by consignments of criminals. What's the point, Barnesy?"

"This, Flecknoe. One: nearly every mutant we have examined in the past eight months has been accused of one of only two crimes: murder, or infanticide. Two: those who killed their own children were for the most part of widely varying types. Three: most of those who committed murder were of the same type."

"And the victims?" the Franciscan said.

"Varying types again. However, the children who were killed were of the same type as the murderers."

"I don't get it," Doull complained. "You confuse me, Barnsey. Tell me

what you make of all this. Barnes said, "This mutation type, which I have named Homo chaos, is a new, true-breeding, stable species of mankind, quite distinct from Homo sapiens. It is now engaged in rubbing out its competition among the more randomized mutations; the murderers are Homo chaos and the citizens of Nagasaki who still belong to Homo sapiens or some variant of Homo sapiens are, here and there, giving birth to Homo chaos babies-and killing them in self-defense!"

Nakamura regarded Barnes with fatherly patience. "Proof?" he said.

"Here." Barnes took a sheaf of papers from his briefcase and tossed them to the center of the table. "Complete reports of the examination section. Homo chaos looks like any ordinary human on the outside; but inside, there are easily recognizable signs. No vermiform appendix; a pineal body that shows up coal-black on the X-rays, even when the pictures are taken through the foramen magnum; a type of nervous tissue impervious to silver nitrate; Golgi bodies

in the brain do not take silver-line stain. And haemotological signs: very fast clotting time and sedimentation rate; a high white count with a predominance of young forms that you would call mononucleosis in a normal human. And a few other

"That's more than enough for me," Doull declared. "Why bother to have reports typed if you're going to re-

"Bud sderilization?" Brecht said heavily. "Zo eggstreme, Herr Doktor Barnes. Vy? Surely you overeztimade the danger?"

doubt it. They're fore-planning your children for you right now. I venture to say that any children we have from

F BARNES' first demand had a caused a sensation, this new asping of a Bomb, After a moment Flecknoe got to his feet.

"I move that we ask Dr. Barnes to submit his resignation, effective immediately," he said. "It is obvious

that he needs a long rest.'

For answer, Barnes strode over to the newly-cut panel in the wall and streamed out; in the aperature, the fine webwork glowed softly.

"That's all through the building," Barnes said, "Our senior engineer, Han Ling, has traced it. It can't be cut, the flow of power in it can't be stopped-and it has nine times the genetic effect of X-rays. God knows how long it's been working on our genes."

He came back to the table, threw another sheat of papers into the center of it. "Reports of the engineering and radiology sections," he said, "We don't know how the web got there; Dr. Han suspects that it was planted like a seed, and grew in the girders. it's my opinion that it isn't matter at all. The radiation acts on exactly nineteen genes, no more. Quite a few

of them are on the X-Chromosome." "Shut the damned door, can't you?"

Doull said, beginning to fidget.

"What for? It isn't the light that's doing the damage, Doull, I assure you. The stuff that's altering your genes-has altered them, probablycomes through that panel like light

through glass.'

There was a long silence. "Look," Doull said. "So they're dangerous. But if we try to sterilize them all, they'll fight back-and I don't mean just those whistle-strikes they used to stage. Why can't we segregate them? We've got camps." "And how would you like to be seg-

regated, Doull?" That's different; I'm normal."

"Oh," Barnes said silkily. "But that's what they all say, Doull. 'I'm normal-my father had six fingers on each hand, why shouldn't I? But as a matter of fact, Doull, you're not normal any more, genetically. You've been sitting in the range of the web. Are you ready to be segregated along with the natives?"

Barnes put his fingertips on the smooth table top, "Gentlemen," he said, "we should have known about this a long time ago. The reason why we did not is that one of our own group has been re-routing much of the important information to the In-

Flecknoe began to turn dangerously purple again, "Are you now about to tell us that this radiation makes somatic changes, Barnes? We are not idiots-"

He stopped and gaped. It was impossible to see just what had happened. Without the slightest stirring of the air, all the papers in the center of the table had fountained upward. swirling, scattering, as if caught in a sudden tornado. There was no other trace of battle.

Barnes turned green, then grey. He staggered backward, clutching for the arms of his chair. He sat for a while breathing shallowly. His brow was spangled with sweat. Finally he raised his head. Somehow a smile had found its way onto his sick face.

"Proof," he said, "If-I hadn't come-prepared, I'd be dead now. Homo chaos is mitogenetic-the Look that Kills, gentlemen. With human beings, it is fatal only to tiny organisms, like yeasts; but Homo chaos can kill men. And does."

He struggled to his feet again and swept his papers into his briefcase, looking levelly at the man opposite him. "I suggest," he said, "that Frater Nakamura be asked to submit to a medical examination. He was born here.'

With that, he reached the door, jerked it open, and then slammed it

NSIDE the room there was dead silence. Then chairs scraped back, slowly, purposefully. Nakamura's voice said, "Gentlemen, if you please-"

"Swine!"

"Gentlemen, please-there is an-other factor-Homo epipsychos we have named it-"

Nakamura's voice choked off. Then he screamed. The door shuddered as if something heavy had been thrown against it.

(Continued On Page 98)

NOTICE



Dear Reader:

This is a special invitation to join the gang of science-fiction readers who write letters to the editor. The time is now. The place-DOWN TO EARTH, c/o FUTURE, Columbia Publications, Inc., 241 Church Street, New York 13, New York, R. S. V. P.

Sincerly yours,



The mayor's wife gasped as she saw the tiny car.

Parking, Unlimited

by Noel Loomis

It was a wonderful plan, a boom to humanity. And solving the parking problem would make a fortune for Slim and me. But when the secret got out...

COULD have taken that three hundred dollars and gone to chool for a year, by washing dishes two hours a night. I had worked for that money, too; shocking wheat for twelve hours a day in the August sun is no vacation. But Slim Coleman convinced me that we could run that three hundred into enough to take us both for four years.

I hadn't even had time to get a

haircut—and I did want a haircut; now it was pretty shaggy.

But Slim, diplomat that he is,

"I've got a real deal," he said, and his deep eyes were shining with enthusiasm. "Have you got any mon-

"Some," I said cautiously.
"It takes three hundred. Hav

you got that much?"

I had intended to say no, but Slim has a way of fixing his deep, somber eyes on you that gives ineffable dignity even to a touch. "Okay," I said honelessly. "What's the bite?"

"Well, you see, it's like this." We went into a drug store and ordered cokes, and Slim characteristically insisted on paying for them when he probably couldn't have bought a package of cigarettes. I let him pay, too. I had three hundred and one dollars, and I had no intention of parting with a nickel of it—except a dollar for a haircut.

"I was using the brain-finder and I ran across the owner of this unused garage in the Loop. His name is Richard LaBonbard and he's got a lichard to parking lots through the Loop, and you know what he's doing?"

I saw the waitress stare at me. I swallowed and tried to listen to Slim. "No."

Slim was staring at the waitress.
"He loads them up with used care
every day so those who are lunning
a parking place can't get in," he said
absently. "You know what he
wants?"

"Well, no." I never could figure those things, but Slim could see the angles a mile away. He was always good at that.

"He's made an application for a permit to build a parking ramp that will cover a solid block down in the middle of the Loop. Now, if he can build a place to park eight or ten thousand cars, naturally that one spot is going to be the best business spot in the city. And Richard La-Bombard holds leases or options on half the store space around that block. He stands to make millions." Where does my three hundred

Slim ignored the acidulousness in my voice. "Well, as I say, I followed him with the brain-finder and found him holding hands with the mayor's wife at a skating rink—and the next day I—ah—persuaded him to give me

come in?"

an option to lease this building on the edge of the Loop."
"You mean you blackma'led him."
"That's a harsh word. I prefer per-

want something like that to come up just when he's finagling for that permit, would he? Anyway, I paid five dollars for the option."

"That's unusual. You've got some of your own money in this deal."

Like a gentleman, Slim ignored that thrust. "Tomorrow is the first. I've got to raise two hundred and fifty for a month's rent. We'll need fifty more for deposits on light, heat, and power. We'll make a million within a month. We split fifty-

"How do you make the million?"

vas near; he leaned close and whispered. "This is the invention of the century. We can solve the parking problem of the entire city. You know how it is—you can't even get into a parking lot after ten am. Lots of businesses are threatening to put branches out in the suburbs." "Yes?"

"The parking problem must be solved if the city is to survive,"

Slim said dramatically.

"Okay, but how can you make any more out of an old building than anybody else?"

He whispered again. "I can create a magnetic field that will slow electrons down to almost zero velocity. A car will shrink to about four inches long." He stared at me intently. "Do you see what that will mean?" I sighed. "I'm afraid I do. If it

works, you can pack a million cars in a space that ordinarily would hold about a thousand." I tried to stop my enthusiasm, but it was too late. The idea was taking hold. "And that garage is right across the street from Newton's, the biggest department store in the city."

"The parking problem was intensified last weel: when they abolished parking on the street so the afternoon traffic could get through. Boy, this is the spot for us!" Slim said. "Will it take all of three hundred dollars? I asked Slim.

He nodded gravely, "Every cent.

And then it will be a shoestring."
"Wouldn't two hundred and ninety-nine be enough?"

"No," said Slim. He looked back at me. He had always been that way; he never compromised with my mon-

ey.

I shuddered when I saw my hair in the mirror as we left. But, I knew I'd better keep the dollar for cigarettes....

We paid the first month's rent; I put up the deposits, and Slim brought a bunch of wire and stuff from his basement, and we worked till one o'clock winding gadgets and building a regular stall to run a car into. This garage had a ramp going to the basement floor, and we decided to use that floor. Also, there was an old freight elevator up to the second and third floors, and we could park a few on the main floor and send a few upstairs when we had time, because of course we didn't want the secret to get out.

Slim tried the squeezer-upper when he got it finished. He set a couple of old saw-horses inside and turned on the juice. It was uncanny to see those things shrink. You could even hear the legs scrape on the concrete floor as they pulled together. In just about three seconds the saw-horses were an inch high. Then Slim reversed the current and they expanded to normal size again, All this in about one breath.

"But look," I said, suddenly stricken with a horrible thought. "What if you don't get a car back exactly the size it was at first? Then new tires wouldn't fit, new parts wouldn't fit -oh, my goodness!" I was abruptly overwhelmed with the enormity of such damage:

"That's all taken care of," he assured me. "The electrons in any given object seem to have a tendency to resume their former orbits if they get a chance. In other words, if I expand a car to almost its normal size and then cut off the power, the electrons will sort of coast into their original orbits and the car will resume its exact former size. Sort of a quantum jump, I suppose."

I breathed a deep sigh of relief. "Of course, if you go too far,

you'll have an oversize car, but you could reduce it again," said Slim. "Now in the morning we'll hang out a parking sign and let them drive onto the main floor. You run the cars into the basement, and we'll have this thing down under the ramp, out of sight." Slim's deep eyes were glowing. "We'll make a million," he said, rubbing his hands.

TELL, BY the end of the next

day it began to look as if we had, indeed, solved the most urgent problem of modern civilization-the parking problem. We had a sign out that said, Parking All Day 50c-No one Turned Away, and by the end of the day we had taken in nearly five hundred dollars.

But it was a mankiller. I handed out claim checks and drove cars to the basement. Slim reduced them and hauled them across the room to a lineup. That was funny-seeing a car shrink to three or four inches long. It was an irresistible impulse to pick it up, but when you tried, you changed your mind. The cars were practically as heavy in their small size as in their big size, and that made it something of a problem to get them moved around.

We had borrowed a toe-and-heel, a sort of crowbar with rollers on it, and with the reduced friction from the extremely small tires of the cars, it wasn't too hard to move them, but it was still a mankiller to move a thousand in one day, and move each twice. We took turns at the reducer. I could handle them best by catching them under the front axle, but we decided to make them six inches long so it would be easier. The metal in its smaller size seemed as tough as it had been normally, but the parts were pretty small to get hold of with anything strong enough to handle them.

Slim solved this problem the second day when he put a long piece of gas-pipe on the heel-and-toe and shrank it considerably. The second day, too, we had two men working upstairs. The third day we had a gadget made so that we could roll a car's front wheel on it and then pull the car anywhere. That was when we began to get our breath.

The other way had been tough, I don't know how Slim stood it at all; if I hadn't worked in the wheatfields all summer I would have fallen from exhaustion.

We had two of those gadgets made and then we tilted the reducing stall a little. We'd block the wheels with a two-by-four after we had a car inside, then reduce it, take out the block, let the car roll onto the gadget and haul it away. We arranged them on the concrete floor in rows about four feet apart. When somebody came back to get their car out we had to pinch-bar the car back up on the gadget and wheel it to the

The second week we had two stalls, one reducing and one expanding, and Slim was talking of having a new sloping floor put in to help in handling. By that time we were handling two thousand cars a day; you can do your own arithmetic.

On the last day of the month, La-Bombard came in to collect his next month's rent. He was all eyes and he said he didn't see how we could do it. "You took in twenty-two hundred cars yesterday and this building won't hold over six hundred," he said, his eyes darting all around. "You must have a fast turnover."

Siim kidded him. "We put 'em on the roof," he said, and paid him and pushed him out. I didn't like the look in that man's eyes as he

"Well," said Slim exuberantly to me, "we're sitting on thirty thousand dollars. Think you can get through college on that?"

"I hope I can take time off to get a haircut," I said fervently. It was embarrassing to have neople look at me and suddenly snicker and turn away to hide their faces. The trouble was, we didn't dare turn the reducing over to anybody else, and so we both worked like robots.

EDY THE beginning of the second month we had a moving ramp. The boys upstairs put the car on the ramp, the car came downstairs and went through the reducer, came out on the other side and onto a platform. We had a tow-truck that just backed up, reached down a steel platform under the front axle, and walked away. It was funny to see that two-ton truck hauling a toy car across the floor.

Yes, we had a deal. Late at night, after we'd closed up and had time for some coffee, Slim would talk about how we were going to build a chain of parking ramps across the country.

"We'll make billions," he said, his deep eyes shining with a far-away fanaticism that only Slim Coleman can exhibit, "and we'll be known as the saviors of civilization. We'll call ourselves Parking Unlimited."

Then one night the building inspector came. We were just resting for a moment, with no cars in sight, when we looked around and there he stood. It startled us, because absolutely no one was allowed in the basement.

"What do you want?" Slim asked, and just then a car appeared on the ramp, coming down to the reduc-

"I'm the building inspector. I'm checking on the weight you're putting in this building. It's an old building, you know." And all the time his eyes were darting every-

"Did LaBombard send you?" asked Slim. The car was halfway down. "Well, not exactly; we're interested in this from the safety angle."

A second car's nose showed around the curve. I began to sweat.

"Okay," said Slim. "Look us over. We do the parking upstairs.' "What do you do down here?"

The inspector stared at the reducing stall.

"That's a new-fangled washing apparatus."

"What are all these toy cars on the floor down here?"

I practically swallowed my tongue.

I had known that was coming. But Slim said casually, "Oh, we're making Christmas presents in our

spare time." The first car was about to enter the reducing stall.

The inspector stared at the two thousand cars on the basement floor. "They look plenty real."

I held my breath. If he should ever try to pick up one of those cars, it would be all over for us. I could just imagine what two thousand owners would say if they should find out their cars had been reduced to six inches. People are not too broad-minded about such things.

But Slim had him by the elbow. With the savage shake of his head at me and the reducing stall, he said, "I'll take you up and show you around." They rode the ramp up-

stairs.

Right then I wanted to lie down and pass out with sheer relief, but the cars were beginning to pile up. I worked like a horse for half an hour, doing double duty. Then Slim came back with a haunting sadness in his eyes, and a faraway look that was not encouraging.

"We've got to get out of here," he said, "He knows too much. Too many parking-lot people are putting on the heat.

"You mean he knows how we are packing them in?"

"No, but he knows that we are taking in as many as three thousand cars a day, while half the parking lots in town are begging for customers.

I sighed, "When are we leaving?" Slim's eyes were looking far away. "At the end of the week," he said. "We've got enough money in the bank to pay all our bills. We've got a couple thousand in the safe, and we'll take in three or four more. Tomorrow's Friday. The next day will be Saturday and we should handle four thousand cars. We blow Saturday night. We'll go to the coast."

"Will I have time to get a haircut?" I asked hopefully.

"No. Get your hair cut in L. A." He went on dreamily, "We should have five thousand. We can start up again, and this time we'll start off right, so we can run indefinitely without anybody catching on. We've got some capital to work with now."

NRIDAY was a good day. Slim only chuckled when I told him there was a man sitting across the street with a pad of paper and a pencil, tallying the cars that came in and those that went out.

"We're good for tomorrow," said Slim, "then they can have it. I've got plane reservations for two a.m."

He didn't say so, but I think he was getting as tight inside as I was. We were close-thirty hours from five thousand dollars-enough to go through college in good shape.

Saturday was a bell-ringer. By six o'clock in the evening we had parked over four thousand cars, and they were still coming. The safe was full tens and twenties, all nicely wrapped and labeled, and our two suitcases were beside it. Still the money was pouring in. Nine cars a minute. One every seven seconds. Two hundred and fifty dollars an hour. It was better than a mint. The basement floor was beginning to fill up.

At six-thirty Slim was bringing a car back to full size and saying to me, "Watch this one. This is the building inspector's car; he's trying to get a clue."

At that exact moment a voice spoke behind us. "I beg your pardon, gentlemen." It was one of those clear, soft voices with little tinkling bells in it. Know what I mean?

Slim turned and stared. "Madam," he said, "don't you know the sign says 'No Admittance'?"

She looked repentant. "I'm sorry." She looked hurt, "I didn't think you gentlemen would mind." She turned as if to go.

I saw Slim melting down. I didn't blame him. That girl could have melted tungsten. Yes, I recognized her from her pictures in the society section—the mayor's wife.

Slim was apologizing. "I beg your pardon, Madam. It's quite all right. Your loveliness and radiant beauty

just startled us. We-"

While Slim was laying it on thick, the building inspector's car was expanding. Now it became considerably too big for the stall and split it like a stick of dynamite going off in a shoe-box. It split it into a thousand pieces and then stood there, a passenger car seven feet tall.

The mayor's wife gave a little scream of delight. Slim gave a horrified gasp. I tried to faint.

"Oh," she said, "such a big car!" Slim moaned, "Please, Madam, will

you leave now?"

She looked hurt again. "Yes, but will you please put this package in my car?"

"I will," said Slim, through tight

jaws. "But-"
"Why, that looks just like the

building inspector's car," she said, wide-eyed. "It's his number, too." "Madam," begged Slim, "you're no

"Madam," begged Slim, "you're no dummy; please leave now and let us get on with our work."

She walked upstairs dubiously. Slim was studying the enormous car with a hopeless look on his face. Orders for cars to be taken out were pouring down the chutc.

"What are we going to do now? We can't run that car into the other stall, because it's too big. It will take all night to build another stall, and no doubt the inspector is waiting up there with a squad of cops, hoping something will happen. After all, we're costing LaBombard a million bucks." His eyes opened suddenly, "I'll but the sent the woman down here to spy on us."

A car came down the ramp and went into the reducing stall, and Slim automatically set the dial.

THE TELEPHONE rang, and I could hear the voice from where

I stood. "The building inspector wants his car."

"Coming right up." Slim said.

Then he looked at me. I looked at him. "Get that safe open," he jerked out. I dived for it.

I was spinning the combination when I heard the voices. The building inspector was riding the ramp down to the basement. Then I heard more voices and saw the bottom half of two cops and Richard LaBombard on the freight elevator.

Slim hissed to me. "Make it snappy!"

I was trying to, but I couldn'd get the thing open. Five thousand dollars in that safe and I couldn't get it. I spun the dial frantically and started over.

But now the ramp was filled with people. The cops were getting off the elevator. I jumped up and ran over to where Steve was standing.

The building inspector was staring bug-eyed at his huge car. Some-body went around the stall and saw the six-inch car crawling out. Some-body else took hold of the stall and shook it. "Where's my car? What's going on?"

Well, a mob is a funny thing. In about half a minute there were eight hundred people in that basement, and all of them tearing apart the reducing stall.

Slim and I hesitated no longer. We ran up the stairway and sifted out

through the crowd...

At three o'clock in the morning Slim said to me, "You think that brakeman will kick us off?"

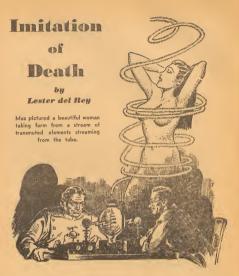
The brakeman came to us, sitting up there in the fresh night breeze on top of a carload of lettuce going east from California. He looked at me and then, as if he didn't believe it, he held his lantern up and ex-

amined my head all the way around.
"Why don't you go back to the farm? This ain't no life for you,"

he growled.

"I am considering that very seriously," I said with as much dignity as I could.

THE END



Councilman Curtis would never cooperate with Max Fleigh's plans for overthrow. But a duplicate of Curtis, a similarawhich could not be distinguished from the real man, would follow Fleigh's orders to perfection. And one man, Jeremiah Greek, knew the secret of mak-

ing the duplications . . .

AX FLEIGH'S heavy jowls relaxed and he chuckled without humor as he examined he knots that bound the man at his feet. Quite impersonally, he planted the toe of his boot in Curriba, listened to the muffled grunt of the control of th

Incompetence had cost them an empire once, and there would be no third opportunity. The stupid democracies that had called themselves a World Union had colonized the planets and ruled them without plan. And when Mars, Venus, and the Jowian Worlds had revolted and set up a Planet Council, all that Earth could do was to come crawling to it, begging polite permission to join what they should have owned!

But that had been before practical realists had kicked out the dreamers and set up the Plutarchy under an iron discipline that could implement its plans. Now they were heading back toward their lost empire, colonizing the asteroids and establishing claims that gave them a rough rule over the outlaws who had retreated there. With the Council softened up by years of cautious propaganda, they were in a position to ask and receive a Mandate over the scattered planetoids.

It was the opening wedge, and all they needed. Once the asteroids could be given spurious independence to seek a Council seat, they would be ready to strike at the Jowan Worlds. With proper incidents, propaganda, and quislings, plus the planetoids to separate Jupiter from the others. The propaganda is a propaganda to the council would be to be separated by the propaganda the council would be the basis of a new and greater Plutarchy.

Fleigh gave the bound body of Curtis another careless kick and went forward to the cabin, where the lanky form of his companion was hunched dourly over the controls of the little space-craft. "How's it going, Slim?"

"So-so." Slim ejected a green stream of narcotic juice and grinned sourly. "But I still say we been crowdin' our luck too hard!"

"Rot! Lay out the right moves, cover all possibilities, out-maneuver your enemies, and you don't need luck! Ever play chess?"

"Nope, can't say I did. Played the horses on Mars, though, time we h'isted the Euphemeron. Won, too—after I bought my lucky ghost charm; been in the chips ever since!" Slim's grin widened, but his face remained

stubbornly unconvinced.

Fleigh chuckled. If the planetoid outlaws depended on magic, while the Council visionaries spouted sentimental twaddle, so much the better for the realists. "Charms don't work in politics, Slim. We have to anticipate resistance. And you saw what happened to our fine Martian Councilor Curtis when he decided to expose us and ruin the Mandate!"

"Yeah." Slim's yellow teeth chewed thoughtfully on his cud. "S'pose he'd stood on Mars, though?"

."We'd have dropped hints of just the information he needed on Ceres and trapped him there—as we did. Checkmate!"

"Or check-out! So when he don't

come back, they smell a rat—an' I ain't plannin' on bein' around to chew rat-poison. My grandpappy killed a Councilor once—poor grandpappy! ...Hey, there's the rock!"

THIREE was no outward sign of life on the barren little plane-told. But as the ship came to a grinding stop in a narrow goge, a concealing shield snapped over them, out in phosphoracent gaudiness on one rocky wall; SIMILACRA, LTD, Jeremiah Greek, Prop. (A line in Greek characters.) Specialist: (Another line in Greek characters.)

Fleigh came out of the lock first and paused while he waited for Slim to shoulder the tarpaulin-covered Curtis and follow. He grinned and pointed at the Greek characters in the sign. "Magician and wondermockery" he translated. "I looked it up on Mars, so don't go thinking it's some kind of spell... Now if the old fool will lopen up..."

Max remembered his own preconceptions of Greek's process, pictured various impressive-looking apparatus, which included a large tube through which some sort of lightning zigzagged, and a beautiful woman taking form from a stream of transmuted elements streaming from the

top. It was nothing like such cinematic legerdermain, of course.

"Why ain't English good enough for him?", complained Slim. "I don't go for that magic stuff, Max. We

been..."

But the Sigma was already swinging back on its tips to reveal a passage through the rock. A little, shriveled man in tattered shorts and thicklensed glasses stood motioning them in impatiently, and the door closed silently when they obeyed his summons. They headed down a side passage toward a ramp and the sound of busy humming.

Greek threw open a door and pointed to a table where the duplicate of Councilor Curtis lay, with a duplicate Teremiah Greek fussing over it and humming through his nose. The guide dropped to a bench and began removing his chest and inserting a fresh power pack between

two terminals.

Slim's mouth dropped open and his burden slipped from his back to the floor with a sodden thump, while he stared from one Greek to the other, and back to the first. His fingers were stretched in the ancient sign of the horns as he watched the changing of accumulators, and his voice was hoarse and uncertain. "A damned robot!"

"Not a robot-a similacrum," denied the owl-eyed man who must have been the original of the metal creature. "I'm a mimesist, not a creator. A robot has independent life, but that's only a limited copy of my memories and habits, like this phoney Curtis. And those tapes you brought me, Fleigh-they stink!"

He gestured toward the spools of the marvelous wire that could record electromagnetic waves of any type of frequency up to several million megacycles. In one corner, a stereoplayer was running one off, but the vision screen was fuzzy, and the voice part was a mass of gibberish.

Fleigh scowled at it, and turned back suspiciously to Greek. "Sure you know how to use them? Those

were made by-"

"By a fool who had a shield leak in his scanner! Only a few were any good. I was using pancyclic tape before you ever saw a stereo-record. Where do you think I impress my similacrum's memory-on a real brain? It takes miles of tape to feed the selectrons! I did the best I could. but... Here, take a look!" He reached into the false Curtis' mouth and did something that made the figure sit up suddenly.

Max went over and muttered into the thing's ear, but after the first few answers it lapsed into sullen silence, and he swung back toward Greek, "I told you Curtis had to be perfect! This wouldn't fool a To-

vian!"

"And I told you I wasn't Jehovah -I specialize in mechanical imitations," Greek answered shortly. "Bum tape, bum similacrum! If you brought me some decent reels, I'll see what I can do, though."

LEIGH grunted and yanked the tarpaulin off the real Curtis. At the sight, new interest appeared on Greek's face, and he came over to examine the Councilor, but stopped after a cursory look had shown that the man was still alive.

He nodded. "That's more like it, Fleigh, I'll set up an encephalograph and ideoform analyzer and record directly off his mind-it's better than feeding impressions from tapes, anyway, though I always used an editing circuit before. Okay, you'll get something his own mother would swear was perfect."

"When?"

"Depends. Narrow-band analysis would take a couple weeks, but it'd be permanent. If I run an all-wave impressor in, the tapes will be barely affected. I can do it in ten-twelve hours, but your similacrum will begin to fade in a week, and wash out completely in a month."

"Suits me," Fleigh decided. "We won't need him more than a few days; any place where Slim and I can catch up on our sleep while you finish?"

Greek's double came to life at a



the tarpaulin-covered Curtis and follow...

signal and led them down a series of rock corridors to a room that lacked nothing in comfort, then went silently out and left them alone. To Fleigh's relief, Slim tested the bed in sour displeasure, pulled a blanket off, and rolled up on the floor, leaving the floation mattress unoccupied. He had as little use for such ultuxries as his boss had for his presence in the same bed. Max climbed in and adjusted the speege dial to perfect comfort with a relaxed grunt of pleasure.

He had no intention of sleeping, though, while things that concerned him were going on. Three hours later, he heaved out and slipped silently down the rocky halls on spongerubber slippers. But his training had covered the stupidity of spy-stereos, and there was nothing stealthy about his entry into the laboratory. Greek looked up from a maze of wires and gadgets with faint surprise but no suspicion.

"Couldn't sleep," Fleigh volunteered apologetically. "I was wondering if you had any barbiturates?"

A few minutes later he took the tablet from Greek's double and turned back down the hallway with a muttered thanks. He had learned all he wanted to know. Both Greeks and Curties were present and accounted for, where they belonged, work; there was no funny business involved. Actually, he had expected none, but it never did any harm to make sure of such things when dealing with men who were outside the

law of either the Plutarchy or the

Slim was snoring and kicking about on the floor when he returned, and he grinned as he plopped back onto the mattress. The outlaws were useful enough now. But once Earth took over the Mandate, something would have to be done about them; into the Plurarchy, Fleigh stretched with a self-satisfied yawn, and slipped into well-earmed sleep.

GREEK'S similacrum wakened them back to the laboratory, where the selection was to the laboratory, where the selection was the selection was the selection was the selection of the laboratory o

This time his tests were longer, and there were no sullen silences from the imitation. Its response was quick, sure, and completely correct; the real Curtis could have done no better, and Fleigh stepped back at last and nodded his approval. He'd demanded a perfect similacrum, and it had been delivered.

"You're sure it has a good strong desire to live?" he asked briefly as he fished into his bag for the little

prepared relay that was ready.
Greek smiled faintly. "They all
have that—they couldn't pass as normal men without it. And if your dimensions were correct, you should
have no trouble installing your re-

lay."

He stripped saide the blouse, to reveal a small cavity in the back of the similarrum, with a bundle of little wires which Fleigh hooked onto the relay. It slipped in, and locked firmly. Greek unclipped the tiny switch from inside the machine's mouth. The animation within the similarrum disappeared at once, to snap back again as a switch on Fleigh's bag was pressed. A little circle of the pancyclic strip moved over a scanner inside the bag, sending out a complex wave, while a re-

ceiver in the similacrum's back responded by closing the relay. Then the animation was cut off again, and came back at once on a second pressure of the switch.

"Attempted removal of the relay will destroy all circuits, just as you ordered," Greek assured the operative, "Well?"

Fleigh's face mirrored complete satisfaction. "You get the fire emeralds, as promised!"

He reached into the bag and came out with a little bundle, a grin stretched across his face. It stayed there while Greek moved forward quickly, to stagger back with a chopped-off scream as the slugs poured into his face and exploded his head into a mangled mess of blood

For a second, the Greek double moved forward, but it turned with a shriek and went down the hall at a clumsy run as Pleigh ripped the smoking gun from the package. He let it go. Curtis' head dissolved under a second series of slugs, and only the similarum of the Councilor was left in the laboratory with the two men.

Slim closed his mouth slowly and reached for his green narcotic, but he made no protest. The other moved about, gathering up combustibles and stacking them in a corner, then setting fire to the pile.

"Which takes care of almost everything. Slim," Fleigh said calmly. They headed out and down the hall toward their ship, with the imitation Curtis moving quietly along behind. Another slug from the gun destroyed the lock on the big Sigma, and they pushed through, out into the rocky pushed through, out into the rocky a perfect red herring to cover up Curtis' disappearance."

SLIM DUCKED into the lock and went forward to the controls.
"Uh-huh. Grandpappy'd sure of admired you, Max! Used to look just the same when he drilled somebody he didn't like... All set for take-off?"

"Forgetting anything, Slim?"

The outlaw looked up in puzzled surprise, while Fleigh shook his head and went over to the receiver. There was no sense in trying to teach the fool anything, apparently, but at least he might have learned elementary caution from his mode of life. The Plutarto operative ripped out the tape from the illegal all-wave recorder and slipped it into a playback slot, while slow comprehension crossed the other's face.

But everything was in order, with the usual hash of faint signals on various frequencies. There were no signs of a strong response, such as would have been made by any attempt on Greek's part to double-cross him with a call to the outside. He set the receiver to record, and went toward the rear cabin and the similacrum, while the ship blasted off

and headed toward Mars.

The false Curtis was already at a table, and groping through a bag of notes the original Councilor had carried. It looked up as Fleigh came in, grimaced, and went on organizing the papers before it. The operative dropped to a chair with his familiar humorless chuckle.

"You realize your life is dependent on obcdiance, uh-Curtis?"

"Would I have let you kill myself otherwise?" the thing asked grimly. "Leave that control gadget of yours where I can get it, and you'll feel the difference between my hands and mere flesh ones! But meantime, I'll cooperate, since I have no choice; I suppose you intend helping me with my speech before the Council?"

Fleigh's appreciation for the peculiar genius of Greek went up several points, as he assented tersely. The thing was perfect, or so nearly so that it seemed to consider itself the real man. There would be no trouble on that score. As for the control bag —he had no intention of letting that out of his hands until the similacrum was turned off.

It gestured toward the notes with a motion peculiar to Curtis. "You'd only ruin anything you edited, Fleigh. I'm perfectly capable of writing the thing myself, and it'll sound like me! But it' mg oing to give you a clean sheet and not make the whole Council sussipicious, I'll need more information than I have. I must have the whole picture, so that I can take care of all objections without run-country of the councilors may know already. Also, I think you'd better learn to address me as Councilor sum of the councilors me as councilor Curtis!

"Quite so, Councilor," Fleigh agreed, and this time the amusement in his laugh was genuine. "Now if you'll tell me what you know of our plans and methods, I'll fill in the blanks. But I want to see that speech,

when you're finished."

T WAS amazing, the amount of evidence Curtis had managed to accumulate in a brief week; or perhaps much of it had been in his hands before, and only needed organizing against what they had let him find on Ceres. It was enough to have ruined all hopes of Earth's getting the Mandate, and seriously endangered her relations with the Planet Council in addition. Fleigh made a mental note to press for an investigation of some of the outland operatives as he began filling in the missing links in the other's information.

Curtis took the facts down in a note-book, grim-faced and silent, checked them back, and reached for the typewriter. The first part of the speech he had meant to deliver needbut slight modification, and Fleigh read it over the similacrum's shoulder as it operated the machine. Then the going grew tougher, and there were long pauses while the thing considered, revising a word here, or changing a paragraph there. It disregarded Fleigh's suggestions with the same disdain that would have been on the real Councilor's face, and the operative began to realize that it was justified. When it came to writing speeches, he was only an amateur, and this was professional work.

He was beginning to regret that the thing could have a life of only from a week to ten days, when it finished; Earth could have used such a propagandist, particularly one accepted on the Council as Mars' chief representative! Curtis' speeches had always been good, but he had never realized that the man's talents would have been equally good on propaganda. It was hard to believe that this was fiction, as he listened to the calm, assured voice running through it, apparently reciting only the simple truth, and vet coloring every word with some trick of oratory that seemed to make it glow with virtue and integrity.

"Perfect!" he commented when it was finished. He cut off the relay signal, watched the similacrum slip to the floor, and went forward to the control cabin with a full measure of satisfaction. Earth could not fail!

And already the red disc of Mars was large and close on the viewplate. Fleigh hadn't realized the time the writing of the speech had taken, but he did not regret a second of it as Slim began nursing the ship down through the thin atmosphere toward the Solar Center.

THE TASTE of coming victory was strong in Max Fleigh as he waited outside the Martian House the next day, but Slim was still glum and morose. Part of that was probably due to his orders to stay out of the usual outlaw haunts on the planet, where the police might have picked him up and ruined the whole plan. The rest, Fleigh decided, was just his natural fear of what he could not understand.

The outlaw was grumbling and turning his lucky ghost charm over and over in his palms. "Leavin' the thing run around this way! We been lucky, Max, but tain't reasonable to figger it'll hold! You shoulda

let me tail him!"

"Sure, Slim. People expect him to go around with you at his heels, no doubt!" Fleigh spat dango seeds out of the open car window, and took another bite of the cool fruit before going on. "We have to let him circulate; no Councilor just back from a two-week trip would hole up before

this meeting, when he had instructions to pick up and last minute de-tails piling in. Besides, we're not dealing with Curtis now, but with a machine. And it knows who its master is! The minute I cut the relay, or it gets ten miles away from me-no life!"

He spotted the similacrum coming down the steps and jumped out to open the car door. Slim grunted dourly, pulling his chauffeur's cap further down over his forehead, but he took the curt order from Curtis with no other protests and headed the big car toward the Council Chambers. The Councilor passed over two slips of elaborate pasteboard and leaned back against the seat.

"Passes for the two of you. Are you sure Slim knows what he's to do?"

There was a disgusted sound from the front, but Fleigh ignored it. "He'd better; we've been over it often enough. But go ahead and make sure."

The similacrum ticked off the

points with incisive authority. The Council Chamber was radiation proof. and since Curtis would not be trusted with the relay signal, the success of the whole thing depended on Slim's behavior. Max had secured a duplicate of his signal generator which the outlaw was to use outside the Assembly, while Fleigh went inside with his and waited. The operative had developed complete confidence in the ability of the false Curtis, and he was sure of his own part. It was all up to Slim, but there was no reason for him to fail, and he had always taken orders well enough be-

Actually, it all went off with perfect smoothness. The guards passed him in after a careful scrutiny of his permit, and he carried the briefcase that held the generator up to the gallery and turned it on. Seconds later, the similacrum came through the big doorway, with only a slight flicker of uncertainty as the antiradiation shield touched him and he passed from one generator to the other.

Curtis walked along the aisle with the proper confidence and attention to his friends, presented his credentials for the purely perfunctory examination, and turned off into one of the little council-rooms. Two of the other Martian Councilors followed him, and passed out of Fleigh's field of view, but he was not worried about that. Slim came slouching down the gallery stairs and dropped into a seat beside the operative, putting the duplicate generator between

"Satisfied?"

"Perfect," Fleigh assured They would reverse it going out. After that, Curtis would announce that he was leaving on a long trip to Ganymede, and they would be able to dispose of the similacrum without any parts left to show what he was.

THEN CURTIS came back into the main chamber. Apparently the Council had been waiting for his return, for the Sergeant-at-Arms waved for order, and the meeting began, with almost no preliminaries. Earth brought up the subject of the Mandate, and the head of the Venus Council began to come to his feet, But Curtis was up first, and the Chair recognized him.

Fleigh relaxed completely as the familiar words of the speech began to come to him, while the Venusans glanced about in surprise, and then began to listen. A moment later they were under the swav of his oratory. The single speech should do it, since the question had been tentatively decided in favor of Earth at the last meeting, pending Curtis' investigation. By night, the Mandage should be a fait accompli, and Earth could begin moving out her mercenary legions in the squat "mining" freight-

Fleigh had a pretty good idea of who would lead them. He'd been in line for promotion for some time already, and the Plutarch had dropped hints of the outcome of success. It would be good to leave the dubious position of operative and become a

(Continued On Page 84)

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(Continued From Page 83) legally recognized governor of the mandate planetoids, to settle down and begin organizing his own private little plans for the Plutarch's job!

Slim nudged him with a bony knee, but Fleigh was too wrapped in his own thoughts to bother until the other seized his elbow and hissed at him. Then he came out of his day-dreams. Something was going on—the Councilors were paying too care full attention, and the Earth Delegation of the council of the counc

cus in his cars.

"...found the organization inconcivibly complex. And yet the basic pattern is old—old as the barbarism that prompted it. Gentlemen, I have only my word as evidence now, but cations that will enable our Planetary Police to confirm every wordting. The Plutarch of Barth, on the twentieth of April, forty-two years ago, gave the following orders, which I quote..."

Fleigh grabbed for Slim's generator, and yanked the button savagely, but still the damning words went on, detail piling on exact detail, while Secret Servicemen moved forward to cut the speaker off from the Earth Delegates. Their rudeness was an open declaration that Earth was immediately severed from the Council! Max ripped out the generator, crushing the delicate tubes in his hands. He was stamping on his own device at the same time, but the voice went on unchecked!

Down on the floor, Curtis looked upwards without pausing in his detailed list of evidence, found the operative's eye, and grinned. Then he resumed his normal gravity and

went on!

Slim's hands were trembling and fumbling over his charm. Fleigh practically carried him to the aisle, and dragged him along as he made his way up the infinite distance to the gallery door. Every step was made with the expectation of a shouted order from Curtis that would send

(Continued On Page 86)

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(Continued From Page 84) the big explosive slugs tearing through him, but it did not come. Instead, there was only the quiet continuance of the speech, and Slim's hoarse prayers to the ghosts of the charm to save them,

Surprisingly, the doors opened in the hands of the courteous guards. and the hall was before them, with no police in sight. Max cut Slim's babbled relief off with a crisp whisper. "We're not out of it, you fool! Ten to one, it's cat and mouse, with us the losers. But if we're going to make use of the tenth chance, shut up! Walk, damn it, and grin!"

THERE WAS another flight of stairs leading down, a long hall, and a second door that opened promptly and politely as they neared it. Then the main steps led down to the street. It was impossible that the similacrum could have given no orders for their arrest; as impossible as that the relay could be tampered with! But the big car waited at the

curb, and there were still no police. Reaction left Slim drooling narcotic juice over the hands that were caressing and kissing the charm. Fleigh yanked him savagely into the car and gunned the electros. It went tearing out into the street under full power, while a wild yell of despair ripped out of the outlaw's

"My ghost charm!" He was pawing franticuly at the door lock, with his face swivelled around toward the bright receding twinkle of the metal piece on the sidewalk behind, "Max!

"Shut up and stay put! There must be a hundred more of those things you can buy if we get out of this." Fleigh freed a hand and forced the cringing fool back into the seat, where he relaxed woodenly, terror fading out to sullen despair that gradually mingled with doubt.

"Then let's get out quick, Max! Oncet we hit Earth, I know a guy's got another. Tain't as good a ghost with it as mine, but it ain't no fake,

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neither! You gotta give me enough to get it, Max!"

Fleigh hid his thin grin from the other. They'd need more than a ghost charm or even planning if they ever went to Earth! He'd seen what happened to failures there, and he knew that it would be better to walk into the nearest Planet Police Bureau But he reached over soothingly and patted the outlaw's shoul-der. "Sure, Slim. We'll get you another, maybe before we leave here."

It shouldn't be hard to find one of the charm peddlers, and done up a story. There was a place on Venus where they could hide, once Slim worked up his nerve to pilot them there-and provided that their luck held long enough to keep the police from impounding the little craft. But the hideout would take money, and that had to come first. Planning took care of that; he'd always been careful to avoid tieing his personal fortune up in the Earth Operative strongholds.

He swung the car around a corner. glanced up at a jeweler's sign, and cursed without slowing down. The red light was on, warning that it had been raided. One of his secret quar-

ters gone!

He stopped obediantly for a through highway, and roared on, But the second was no better. There was sweat on his forehead, and his hands were slippery with it when he headed out Mars Center Canal into the suburbs. Damn Curtis! It was imhideout-or should have been!

But there was no warning light in the window of the third and last place. The lawyer's faded sign swung in the thin wind, and everything was serenely peaceful. Fleigh jerked Slim out of the car, set its automatic chauffeur, and let it go rolling off.

Then he moved up the steps with the outlaw at his heels, listened cautiously at the door, and nodded. The steady click of a typewriter indicated that the scrawny little secretary was doing the routine office-work, and Sammy must have been undis-

(Continued On Page 98)

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(Continued From Page 87) turbed. He opened the door eagerly, to a louder clicking from the typewriter.

BOVE IT, Curtis looked up with an assured smile, and waved the grandfather of all hand weapons at him in genial greeting!

"Come in, Max," he said cordially. "Like my double's speech?"

Slim's trembling hand fumbled out automatically in the sign of the horns. His blanched mouth worked furiously, but the words refused to come until Curtis turned to him. Then jerked back, waving his fingers. "He couldn'ta... We'd of beat him... Max! He's dead! He's a ghost!"

Fleigh's hand groped for him, and missed. Another apparition came into the room from the inner office. This one was a shrivelled, little man, with owl-eyes that blinked at them out of thick-lensed spectacles. Jeremiah Greek picked up a pencil with bare flesh of his sarn; and held the red mark that rose on the skin out toward the outlaw.

"In the flesh," he stated.

But Slim was no longer listening, Slowly, as if moved by worn-down clock-works, he slid down the wall and his dead-faced head bent forward to meet the knees that drew upwards. There he stayed, motion-

less. "If that's catatonic return to the foetal position, it's an all-time record for speed," Curtis commented with quiet interest. "Sit down, Max. You seem to have overestimated your companion's moral fiber, and underestimated your opponent's. Never count on luck! It takes planning to get anywhere in this universe ... By the way, Jeremiah Greek is the original inventor of pancyclic tape: you should have checked up on him. before you trusted him, and found out the way your Plutarchy gypped him out of his invention. He wasn't the sort of man who'd cooperate very well with Earth. In fact, he was the sort who could and would fake a

tape for your recorder to cover up the call he put in under my code to the Martian Council!"

Fleigh moved toward the chair as the gun commanded, only half conscious of the words. He sank into a sitting position, his mind churning sawagely and getting nowhere. Play along! Keep your eyes open II you let the other guy make the moves, the listing as omewhere. It was basic when the same was the same was uncertainty in even that logic was uncertainty in even that logic now, But there was nothing else to

Greek picked up the account. "With a promise of secreey from Councilor Curtis, and a chance to do legitimate research here. I felt quite free to drop my very doubtful loyalty to my native planet, Mr. Fleigh. Those two similacra you shot were crude, and the brain and blood were crude, and the brain and blood Dat fortunately, you didn't investigate thoroughly."

"I didn't think the relay control could fail. So you simply let the similarrum collapse and took its place?" Fleigh was forcing himself to casualness, while his brain hashed over all the rules for upsetting a trap. But it returned inevitably to the hasic need of stalling for time.

and keeping them talking.

"Not at all," Curtis corrected him were last returning, so they usingly used at returning, so they usingly used and returning to the correct your correct plants or each of the correct your correct in a generator, and the similarum had his freedom in his pocket two minutes after you turned on your control in the Council Chamber. You really didn't think I'd leave my speech in the middle to chase you, when I had a perfectly good double, surely?"

LEIGH'S eyes darted to Slim, but there would be no help from that quarter. Not a muscle had moved since the outlaw had collapsed onto the floor!

He forced himself to relax deliberately. Relax! As long as he was tensed up in the chair, they'd watch (Continued On Page 90)



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(Continued From Page 89) him, but they'd be less cautious if he seemed to abandon hope. And he was younger and faster than they were, in spite of his fat.

Greek's amused cackle broke his chain of thought. "So simple a solution, Max! But of course, an involute brain would miss just that ... That's fine, relax! And when you start anything, you'll be surprised to find how quickly and efficiently a couple of sentimental visionary fools can shoot! Or do you think, Councilor, that we're really such

"I doubt it," Curtis answered, with the same hard amusement in his voice. "As I see it, a reactionary is simply unable to adapt to new conditions; he's filled with a blind, stubborn dependence on the rude past. And brute force is an admission of that intellectual poverty. Max, you should have studied history better. The addle-pated idealists have a peculiar habit of winning."

They stood there, grinning and studying their captive with the one thing in the universe he had never encountered-open contempt. Fleigh wet his lips, glancing from one to the other, and considering the hopeless distance to the door.

And suddenly the beginnings of an idea permeated through the hard knot of fear in his brain. They didn't believe in brute force! They wouldn't kill him without provocation; and they couldn't turn him in to the po-

He swung back to Curtis, and this time there was a grin on his own lips. "You said you promised Mr. Greek secrecy, Councilor. Not immu-nity, because the old law against making robots is too strong; and similacra would be considered robots. Well, just how do you figure you can turn me over to the authorities without breaking that promise and having him strung up beside me?"

"I never meant to turn you in," Curtis answered. "And you said yourself that brute

force was stupid!"

"Quite true." It was Greek who

answered this time. "But the rules of justice sometimes invoke it. The penalty for treason, like that for zobotry, is still death, though we've abandoned most other reasons for capital punishment."

"Then turn me in! Or kill me yourselves—and you'll find that brute force really is stupid on Mars! The police here are the best in the system, which is why I always preferred to do my little jobs elsewhere. You amateurs wouldn't have a chance. Well?"

But he knew that he had them, and the taste of freedom in his mouth was sweet after the fear and hopelessness of their gloating power. He did not wait for an answering nod from them, but turned from his chair in calm assurance, and headed for the door.

EEEK'S voice interrupted his exit. "Just a minute, Max! You really should know all your mistakes, and the perfect similaround it. "A the perfect similaround it." It was perfect without thinking exactly like its original; the same mind must operate the same way. Your similaround was limited only by the time it could exist—and it knew that, as well as knowing it was useless among real men!"

"So what?" Fleigh asked jauntily, and reached for the door. "And so long!"

Steel hands grabbed him, and a pair of arms with inhuman strength picked him up and turned him around to face the two men. Curtis dropped his gun onto the table with a slow, deliberate motion, holding the struggling operative with a single hand, while he stretched the other out to Jeremiah Greek. Then he turned toward the door, dragging the fat body of Fleigh along without effort.

"So when you're found dead in your house, killed by the robot you were having built in some fiendish plot against Councilor Curtis, I don't think the police will worry—beyond

(Continued On Page 92)

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(Continued From Page 91) seeing that both you and the robot are thoroughly beyond repair!"

There was bitterness in the voice of the similacrum, but it was resoand determined bitterness. "When the real Curtis replaced me in the Council Chamber, he meant to make my few days of existence as pleasant as possible. But even a limited similacrum likes to be useful. Come along, Max."

Max Fleigh went along; there was nothing else he could do, as the duplicate of Curtis tossed him into a small car and began driving back toward the town and the house that had been his Martian home and would soon be his tomb. He couldn's even think straight, for his head insisted on dwelling on nonsense.

3lim had been right, after all, and his ghost charm had brought him luck, even after he lost it. But for the man who had refused to believe in it, there was no hope for such insane oblivion. There was simply no hope of any kind.

THE MINIATURE MENACE

(Continued From Page ...

For a moment Langford felt a swirl of energy brush his fingertips, like the clasp of an intangible hand. Then the mental voice said: "Good heavens, Langford! You're dripping wet! See how the dry leaves of the forest cling to your feet!"

Startled, Langford lowered his

When he looked up the circle of radiance was gone.

"Forgive me, Langford!" a faint, diminishing voice said. "But partings should not be prolonged! Goodbye, my friend!"

When Langford emerged on the riverbank sunlight struck down over his tall, straight body, giving him the aspect of a Greek god emerging from a forest glade in the morning of the world.

He paused for an instant on the sloping bank to wave to his wife. Then he plunged into the river and

swam straight toward her.

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(Continued From Page 89) Barnes smiled and turned away Han Ling was waiting behind him fingering his lobeless ear reflectively. "Hello, Han, What luck?"

"There's a leading cable in the subbasement Dr Rarnes I think we can feed a charge back along it and blow un their power-scource, wherever it is." He cocked his head toward the door through which horrid sounds were coming, "But what of Naka-

mura? Did you kill him?"
"Kill him?" Barnes said, "No: it was only necessary to provoke him into trying mitogenetic murder on me I suppose they all think I was wearing some sort of shield, but the important thing is that he can't use it on them now. We should be glad that Homo enipsychos-"

"Homo superior," Han Ling said. "Well, ves, of course. Still the name the Chaos group has given us is so poetic. In any event we should be glad we are not so easily detectable as they."

The Chinese abandoned the caressing of his ear and smiled. "I am pleased," he said, "Had he forced you to kill him personally, we might have been in some danger of betraval. As it is, we can finish our pogrom without revealing ourselves. I was worried."

"No need to have worried." Barnes said. "I knew I wouldn't have to do the job myself. Human beings are so emotional: tell them somebody's been tampering with their parenthood,

and-" Rehind them. Nakamura shrieked. The two mutants disappeared into the polite maw of an elevator.

THE END





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(Continued From Page 49)

plastic and metal, hit a foreleg. Although that leg was largely plastic, what metal it contained being mostly magnesium for lightness there were steel wires imbedded for magnetic purposes. The bullet smashed through plastic and magnesium.

struck a spark upon the steel. There was a flaring, sun-bright flash of flame, a dense cloud of smoke. The mountain-lion shape leaped furiously and the jerk dislodged the slightly singed Salazar and sent him rolling. The mountainlion vehicle landed and rolled over and over, one leg useless and spouting monstrous, white, actinic fire. The being inside knew an instant's panic; then it felt yielding sheep-bodies below it, thrashed about violently and crazily, and at last the Oul-En jammed the flame-spurting limb deep into soft earth. The fire went out: but that leg of its vehicle was almost

For an instant deadly rage filled the tiny occupant of the cabin where a mountain-lion's lungs should have been. Almost, it turned and opened been. Almost, it turned and opened out the killing-beam. Almost. The flock would have died instantly, and the man and the dog, and all things in the wild for miles. But that would not have been scientific, after all, the biped."

4

HE QUL-EN ceased the thrashings of its vehicle. It thought coldly. Salazar raced up to it, barking with a shrillness that told of terror valorously combatted; he danced about, barking.

danced about, Darsing, solution. Its children control and hand legs and raced up the hillside. It was an emergency method of locomotion for which this particular vehicle was not designed, and it required almost inspired handling of the controls to achieve it. But the Qul-En inside was not achieve it. But the Qul-En inside was experienced to the property of the pro

after it. Safely away, the Qul-En stopped and deliberately experimented until the process of running on three legs developed. Then the mountain-lion, which was not a mountainlion, went bounding through the night toward its hidden ship.

Within an hour, it clawed away the brush from the exit-port, crawled inside, and closed the port after it. As a matter of pure precaution, it touched the "take-off" control before it even came out of its vehicle.

The ventilation-opening closedvery nearly. The ship rose quietly and swiftly toward the skies. Its arrival had not been noted; its departure was quite unsuspected.

It wasn't until the Qul-En touched the switch for the ship's system of internal illumination to go on that anything appeared to be wrong. There was a momentary arc, and darkness. There was no interior illumination: ants had stripped insulation from essential wires. The lights were shorted. The Qul-En was bewildered; it climbed back into the mountain-lion shape to use the infrared-sensitive scanning-cells.

The interior of the ship was a crawling mass of insect life. There were ants and earwigs, silverfish and mites, spiders and centipedes, mantises and beetles. There were moths. larvae, grubs, midges, gnats and flies. The recording-instrument was shrouded in cobweb and hooded in dust which was fragments of the bodies of the spiders' tiny victims. riddlad with the tunnels of beetles, Crichets devoured plastic parts of the ship and chirped loudly. And the controls-ah! the controls! Insula-

The Cul-En went into a rage deadly enough to destroy the insects of itself. The whole future of its race depended on the discovery of an adequate source of a certain hormone. That source had been found. Only the return of this one small ship-(Continued On Page 96)

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fifteen feet in dlameter—was needed to secure the future of a hundredthousand-year-old civilization. And it was impeded by the insect-life of the planet left behind! Insect-life so low in nervous organization that the Qul-En had ignored it!

THE SHIP was twenty thousand miles out from earth when the occupant of the mountain-lion used its ray-beam gun to destroy all the miniature enemies of its race. The killing beam swept about the ship. Mites, spiders, beetles, larvae, silverfish and flies-everything died. Then the Oul-En crawled out and began to make repairs, furiously. The technical skill needed was not lacking; in hours, this same being had made a perfect counterfeit of a mountainlion to serve it as a vehicle. Tracing and replacing gnawed-away insulation would be merely a tedious task. The ship would return to its home planet; the future of the Oul-En race would be secure. Great ships, many times the size of this, would flash through emptiness and come to this planet with instruments specially designed for collecting specimens of the local fauna. The cities of the civilized race would be the simplest and most ample sources of the sodesperately-needed hormone, no doubt. The inhabitants of even one city would furnish a stop-gap supply. In time-why-it would become systematic. The hormone would be gathered from this continent at this time, and from that continent at that, allowing the animals and the civilized race to breed for a few years in between collections. Yes...

The Qul-En worked feverishly. Presently it felt a vague discomfort; it worked on. The discomfort increased; it could discover no reason for it. It worked on, feverishly...

Back on Earth, morning came. The sun rose slowly and the dew lay heavy on the mountain grasses. Faraway peaks were just beginning to be visible through clouds that had lain on them overnight. Antonio still trembled, but Salazar slept. When



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PROGRESS TAILORING CO. Dept. E-343 500 S. Throop St., Chicago 7, Ikinois. the sun was fully risen he arose and shook himself; he stretched elabcrately, scratched thoroughly, shook himself again and was ready for a new day. When Antonio tremblingly insisted that they drive the flock on toward the lowlands, Stazar assisted. He trotted after the flock and kept them moving; that was his business.

Out in space, the silvery ship suddenly winked out of existence. Enough of its circuits had been repaired to put it in overdrive. The Qul-En was desperate, by that time. It felt itself growing weaker, and it was utterly necessary to reach its won race and report the salvation it had found for them. The record of the filchering flame was ruined. The Cul-En felt that itself was dying. But of the planetary systems inhabited by its race, it could signal them and all would be well.

Moving ever more feebly, the Oul-En managed to get lights on within the ship again. Then it found what it considered the cause of its increasing weakness and spasmodic, gasping breaths. In using the killing-ray it had swept all the interior of the ship. But not the mountain-lion shape. Naturally! And the mountain-lion shape had killed specimens and carried them about. While its foreleg flamed, it had even rolled on startled, stupid sheep. It had acquired fleasperhaps some from Salazar-and ticks. The fleas and ticks had not been killed; they now happily inhabited the Oul-En.

The Qul-En tried desperately to remain alive until a message could be given to its people, but it was not possible. There was a slight matter the returning explorer was too much wrought up to perceive, and the instruments that would have reported it were out of action because of destroyed insulation. When the ventilation-slit was closed as the ship took off, it did not close completely; a large beetle was in the way. There was a most tiny but continuous leakage of air past the crushed chitinous armor. The Oul-En in the ship died of oxygen-starvation without realizing what had happened, just as human pilots sometimes black out from the same cause before they of skin. It went on into the shape of know what is the matter. So the little silvery ship never came out of overdrive. It went on forever, or until its source of power failed.

The fleas and ticks, too, died in time; they died very happily, very full of Qul-En body-fluid. And they never had a chance to report to their fellows that the Qul-En were very superior hosts.

The only entity who could report told his story and was laughed at. Only his cronies, ignorant and superstitious men like himself, could believe in the existence of a thing not of earth, in the shape of a mountain-lion that leaped hundreds of feet at a time, which dissected wild creatures and made magic over them, but led from bullets marked with a cross and bled flame and smoke when such a bullet wounded it.

Such a thing, of course, was absurd!

THE END

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